CALIFORNIA DEPARTMENT OF CORRECTIONS

ENTERPRISE RESOURCE PLANNING SOLUTION

BUSINESS INFORMATION SYSTEM PROJECT

FEASIBILITY STUDY REPORT

Revised July 6, 2004

Version 6.2

INFORMATION TECHNOLOGY PROJECT REQUEST

FEASIBILITY STUDY REPORT

EXECUTIVE APPROVAL TRANSMITTAL

Department Name
California Department of Corrections
Project Title (maximum of 75 characters)
Business Information System (BIS) Project

Project Acronym	Department Priority	Agency Priority
BIS	**2**	**N/A**

APPROVAL SIGNATURES

I am submitting the attached Feasibility Study Report (FSR) in support of our request for the Technology Investment Review Unit's approval to undertake this project.

I certify that the FSR was prepared in accordance with State Administrative Manual Sections 4920-4930.1 and that the proposed project is consistent with our information technology objectives as expressed in our Agency Information Management Strategy dated August 2002.

I have reviewed and agree with the information in the attached FSR.

Chief Information Officer, Information Services Division		**Date Signed**
Printed name:	Christy Quinlan	
Deputy Director, Financial Services Division		**Date Signed**
Printed name:	Wendy Still	
Director		**Date Signed**
Printed name:	Richard A. Rimmer (A)	
Agency Secretary		**Date Signed**
Printed name:	Roderick Q. Hickman	

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GLOSSARY OF TERMS

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- PROPOSED ALTERNATIVE COST WORKSHEET
- ECONOMIC ANALYSIS SUMMARY FOR PROPOSED ALTERNATIVE AND ALTERNATIVE ONE
- PROJECT FUNDING PLAN

APPENDIX C – "AS-IS" PROCESS FLOWS

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INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
2.1 SECTION A: EXECUTIVE SUMMARY

1	Electronic Submittal Date	

		PFSR	FSR				
2.	Type Of Document		√				
	Document Id #						

			Estimated Project Dates	
			Start	End
3.	Project Title	Business Information System Project	07/04	11/07
	Project Acronym	BIS		

			Forced Rank Project Priority
4.	Submitting Department	California Department of Corrections (CDC)	2
5.	Reporting Agency	Youth and Adult Correctional Agency	

Project #	
Date Rec'd	
Doc. Type	

6. Project Objective (brief description, 400 characters)

The objectives of this project are to:
- streamline and automate the financial/budget, human resources, and procurement/contract practices of the California Department of Corrections (CDC);
- standardize the processes that support these functions;
- integrate the costs associated with CDC programs across divisional lines;
- improve the quality and timeliness of the data related to these functions;
- minimize paper flow;
- ensure the CDC network is available and scalable to handle the current and future transmission and data flow needs of CDC's administrative support processes within the scope of the BIS Project.

8	Project Phasing	One-Time Total Costs
	Implementation (includes BIS ERP and Bandwidth project costs)	$46,620,822
	Vendor Finance Costs	$29,320,977

2.2 SECTION B: PROJECT CONTACTS

Project #	
Date Rec'd	
Doc. Type	

Executive Contacts								
	First Name	**Last Name**	**Area Code**	**Phone #**	**Ext.**	**Area Code**	**Fax #**	**E-mail**
Agency Secretary	Roderick Q.	Hickman	916	323-6001		916	442-2637	Roderick.Hickman@corr.ca.gov
Dept. Director	Jeanne S.	Woodford	916	445-7688		916	322-2877	Jeanne.Woodford@corr.ca.gov
Budget Officer	Wendy	Still	916	323-0218		916	324-1619	Wendy.Still@corr.ca.gov
CIO	Christy	Quinlan	916	358-2319		916	358-2322	Christy.Quinlan@corr.ca.gov
Project Sponsor	Wendy	Still	916	323-0218		916	324-1619	Wendy.Still@corr.ca.gov
Direct Contacts								
	First Name	**Last Name**	**Area Code**	**Phone #**	**Ext.**	**Area Code**	**Fax #**	**E-mail**
Doc. Prepared By	Kim	Brain	916	445-1151		916	445-6191	Kim.Brain@corr.ca.gov
Primary Contact (A)	Kerry	Cataline	916	445-0536		916	445-6191	Kerry.Cataline@corr.ca.gov
Project Manager (A)	Kerry	Cataline	916	445-0536		916	445-6191	Kerry.Cataline@corr.ca.gov

INFORMATION TECHNOLOGY PROJECT SUMMARY
2.3 SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS

1.	What is the date of your current Operational Recovery Plan (ORP)?	Date	July 2002
2.	What is the date of your current Agency Information Management Strategy	Date	August 2002
3.	For the proposed project, provide the page reference in your current AIMS	Doc.	AIMS
		Page #	18

Project #	
Date Rec'd	
Doc. Type	

		Yes	No
4.	Is the project reportable to control agencies? (SIMM Volume 1, Policy 5.0)	X	

	If YES, CHECK All That Apply:
X	a) The estimated total development and acquisition cost exceeds the Departmental cost threshold.[1]
	b) A new system development or acquisition that is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.[1]
X	c) The project involves a budget action.[1]
	d) Acquisition of any microcomputer commodities and the agency does not have an approved Workgroup Computing Policy (WCP).
X	e) Electronic access to private information concerning individuals or entities by entities or individuals other than the entity responsible for data ownership or other entities authorized by law.
	f) Installation or expansion of wide area network data communication facilities or services other than those acquired through contracts administered by the Department of General Services, or a State consolidated data center as defined in SAM Section 4982.
	g) Development, acquisition or installation of technologies not currently supported by the Department or not currently supported by a State consolidated data center.
	h) Development and/or purchase of systems to support activities as defined by Technology Investment Review Unit (TIRU) Enterprise Systems Report.[2]
X	i) Acquisition or upgrade of a multi-user central processing unit, except for previously approved projects as defined under SAM 4819.2, or servers being used only for Departmental Office Automation functions.

[1] The Department of Finance (DOF) will forward a copy of the FSR meeting these reporting criteria to TIRU.

[2] A copy will be forwarded to the DOF's (CalSTARS Unit) if it is determined the business case or proposed solution is related to financial accounting systems.

2.4 SECTION D: PROJECT SCHEDULE

Project #	
Date Rec'd	
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Major Milestones		
Description:		**Planned Delivery Relative to Project Start**
1.	Concept Complete	2 Months
2.	Requirements Complete	5 Months
3.	Design Complete	8 Months
4.	Development Complete	11 Months
5.	Testing Complete	14 Months
6.	Training Complete	17 Months
7.	Implementation Complete	18 Months
8.	Post Implementation Complete	26-30 Months

Key Deliverables:		
Description:		**Planned Delivery Relative to Project Start**
1.	Project Plans and Strategies; Change Readiness Assessment	2 Months
2.	Revised Process Flows; Gap Analysis Report; Requirements Specification; Change Management Plan	5 Months
3.	Technical Specifications; Quantified Benefits	8 Months
4.	Operational Metrics; Configured Application; Unit/Integration Test Results	11 Months
5.	User Acceptance Test Results; Working Software	14 Months
6.	Trained End-Users	17 Months
7.	Reengineered Business Processes using ERP Solution	18 Months
8.	PIER Report	26-30 Months

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
2.5 SECTION E: BUDGET INFORMATION

Project #	
Date Rec'd	
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Budget Augmentation Required?	
No	
Yes	X

If YES, indicate fiscal year(s) and associated amount
(augmentation amount matches attachment B of Spring Finance Letter):

FY	03/04	FY	04/05	FY	05/06	FY	06/07	FY	07/08
	$745,443		$4,634,000		$9,227,000		$10,368,000		$14,400,000

Project Costs

1.	Fiscal Year	03/04	04/05	05/06	06/07	07/08	SUBTOTAL
2.	One-Time Cost	$745,443	$4,641,503	$8,535,979	$9,794,796	$10,265,474*	$33,983,195
3.	Continuing Costs	$0	$12,136	$1,536,087	$4,859,917	$10,418,198	$16,826,338
4.	TOTAL PROJECT BUDGET	$745,443	$4,653,639	$10,072,066	$14,654,713	$20,683,672	$50,809,533

Note: *Vendor financing payment of $4,188,711 included in One-Time Cost beginning FY 07/08 through FY 13/14.

5.	General Fund	$745,443	$4,634,000	$10,032,784	$14,635,074	$20,371,423	$50,418,724
6.	Redirection		$19,639	$39,282	$19,639	$312,249	$390,809
7.	Reimbursements	$0	$0	$0	$0	$0	$0
8.	Federal Funds	$0	$0	$0	$0	$0	$0
9.	Special Funds	$0	$0	$0	$0	$0	$0
10.	Grant Funds	$0	$0	$0	$0	$0	$0
11.	Other Funds*	$0	$0	[$2,145,734]	[$22,204,056]	[$4,291,468]	[$28,641,258]
12.	NET PROJECT BUDGET	$745,443	$4,653,639	$10,072,066	$14,654,713	$20,683,672	$50,809,533

*Note: Vendor Financing for hardware, software and implementers; FY dollars not added into totals. Payment for financing of $ 4,188,711, for 7 years included in # 2, One-Time Cost beginning FY 07/08 and in #5, General Fund.

Project Financial Benefits

13.	Cost Savings /Avoidances	($745,443)	($4,609,883)	($9,888,775)	($10,441,639)	($6,244,303)	($31,930,043)
14.	Revenue Increase	$0	$0	$0	$0	$0	$0
15.	NET (COST) OR BENEFIT	($745,443)	($4,609,883)	($9,888,775)	($10,441,639)	($6,244,303)	($31,930,043)

Project #	
Date Rec'd	
Doc. Type	

Budget Augmentation Required?		
No		
Yes	X	If YES, indicate fiscal year(s) and associated amount (figure matches attachment B of SFL):

FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
$9,953,000	$0	$0	$0	$0	$0

Project Costs

		08/09	09/10	10/11	11/12	12/13	13/14	TOTAL
1.	Fiscal Year							
2.	One-Time Cost	$4,188,711*	$4,188,711*	$4,188,711*	$4,188,711*	$4,188,711*	$4,188,711*	$59,115,461
3.	Continuing Costs	$13,154,094	$13,154,094	$13,154,094	$13,154,094	$13,154,094	$13,154,094	$95,750,902
4.	TOTAL PROJECT BUDGET	$17,342,805	$17,342,805	$17,342,805	$17,342,805	$17,342,805	$17,342,805	$154,866,363

Note: *Vendor financing payment of $4,188,711 included in One-Time Cost beginning FY 07/08 through FY 13/14.

5.	General Fund	$16,585,209	$16,585,209	$16,585,209	$16,585,209	$16,585,209	$16,585,209	$149,929,978
6.	Redirection	$757,596	$757,596	$757,596	$757,596	$757,596	$757,596	$4,936,385
7.	Reimbursements	$0	$0	$0	$0	$0	$0	$0
8.	Federal Funds	$0	$0	$0	$0	$0	$0	$0
9.	Special Funds	$0	$0	$0	$0	$0	$0	$0
10.	Grant Funds	$0	$0	$0	$0	$0	$0	$0
11.	Other Funds*	$0	$0	$0	$0	$0	$0	$0
12.	NET PROJECT BUDGET	$17,342,805	$17,342,805	$17,342,805	$17,342,805	$17,342,805	$17,342,805	$154,866,363

*Note: Vendor Financing for hardware, software and implementers; FY dollars not added in to totals. Payment for financing of $4,188,711, for 7 years included in # 2, One-Time Cost beginning FY 07/08 and in #5, General Fund.

Project Financial Benefits

13.	Cost Savings /Avoidances	$2,672,632	$10,424,641	$14,648,791	$19,295,356	$24,406,577	$30,028,920	$69,546,874
14.	Revenue Increase	$0	$0	$0	$0	$0	$0	$0
15.	NET (COST) OR BENEFIT	$2,672,632	$10,424,641	$14,648,791	$19,295,356	$24,406,577	$30,028,920	$69,546,874

Project #	
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Vendor FSR Cost

Vendor Cost for FSR Development (if applicable)	$583,345
Vendor Name	Venturi Technology Partners

Vendor Project Budget

1.	Fiscal Year	03/04	04/05	05/06	06/07	07/08	08/09	TOTAL
2.	Primary Vendor Budget	$0		$2,145,734	$12,874,404	$4,291,468	$0	$19,311,606
3.	Oversight Budget	$0	$391,000	$783,360	$652,800	$652,800	$0	$2,479,960
4.	IV&V	$0	$391,000	$783,360	$652,800	$652,800	$0	$2,479,960
5.	Technical Project Manager	$154,000	$369,600	$369,600	$369,600	$369,600	$0	$1,632,400
6.	Financial/Negotiations Expertise	$0	$186,000	$186,000	$124,000	$0	$0	$496,000
7.	Legal Expertise	$18,400	$24,000	$0	$0	$0	$0	$42,400
8.	BIS – Telecomm	$264,000	$215,600	$248,240				$727,840
9.	BIS – Bandwidth		$306,000	$2,046,000	$100,000			$2,452,000
10.	Total Vendor Budget	$436,400	$1,883,200	$6,562,294	$14,773,604	$5,966,668	$0	$29,622,166

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Risk Assessment

	Risk Assessment Model (RAM)	Score	Rating
1.	Strategic Risk	1.20	
2.	Financial Risk	2.60	
3.	Project Management Risk	1.71	
4.	Technology Risk	1.00	
5.	Change Management & Operation Risk	5.00	
6.	Overall Risk Score	2.30	
7.	Date of current RAM	06-06-02	

		Yes	No
8.	Has a Risk Management Plan been developed for this project?	X	

General Comment(s)
Some of the questions in the RAM could not be answered until a solution is selected.

Project #	
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Project Profile Information

1.	Implementation Approach:
√	Purchase and Integrate
	In-house Development
	Vendor Development

2.	Project Type:
√	Application Development
	Artificial Intelligence
	C.A. Dispatch
	C.A. Design
	C.A.S.E.
	Client Server
√	Database
	E-mail/Messaging
	EC/EDI
	EDI
	EFT
	Expert System
	Imaging
	G.I.S.
√	LAN
	Mainframe
	Office Automation
√	Telecomm
√	WAN
√	WEB Technology
√	Other: COTS

3.	Business Program/Practice:
√	Asset Management
	Case Management
√	Contract Management
√	Document Tracking
√	Financial
	Fingerprint
√	General Accounting
√	Human Resources

3.	Business Program/Practice:
	Law Enforcement
	Law Enforcement/AFIS
	Licensing
√	Procurement
	Reg and Titling
√	Project Management
	Telecommunication
√	Workflow
√	Workload Management
	Other:

4.	Outsourced Components
√	Application Development
	Contract Manager
√	Database Design
	Facilities Manager
	Hardware
√	Independent Oversight
√	Telecommunications
√	Project Manager
√	Quality Assurance
	Site Prep
√	Software Developer
√	Systems Analyst
√	Systems Integrator
	Other:

5.	Operating System:
√	Client and Network Operating System

6.	Hardware Platform:
√	Network Servers and Work Stations

7.	Database Engine:
√	Data Base Management System

8.	Messaging Engine

9.	WEB Server
√	Determined based on system purchased

10.	Development Tools
√	Determine based on system purchased

11.	Network Protocols
√	TCP/IP

3.0 BUSINESS CASE

This Feasibility Study Report (FSR) describes the need for the California Department of Corrections (CDC) to implement an Enterprise Resources Planning (ERP) Solution to improve the forecasting, tracking and reporting of its financial/budget, human resources and procurement/contract activities on a statewide basis. The ERP will make available the data necessary to identify expenditures on a "real-time" basis to better manage and control the Department's multi-billion dollar per year budget (estimated to be $5.2 billion for fiscal year (FY) 2002/2003) and approximately 45,357 employees. The Background Section emphasizes the business services that are within the scope of this effort, and may not be all-inclusive of the services CDC provides.

3.1 BUSINESS PROGRAM BACKGROUND

The mission of CDC is the control, care, treatment and supervision of men and women who are convicted felons, or those admitted to the civil narcotic program, and entrusted to the Department's Institution, Health Care Services, and Community Correctional Programs. The CDC is organized into four programs: Institution Program, Health Care Services Program, Community Correctional Program, and Central Administration Program.

INSTITUTION PROGRAM

The CDC is required by statute to accept convicted felons when their sentence is imprisonment in a State correctional facility and civilly committed nonfelon narcotic addicts from California courts. The Department provides safe and secure detention facilities to protect society from further criminal activities and to provide necessary services such as feeding, clothing, medical care, psychiatric and counseling services, drug treatment, and training, including academic and vocational education.

The Institutions Division (ID) is responsible for this program, has a total operating budget of approximately $3.3 billion and an estimated staff of 36,500 located in Headquarters and field locations. Within its area of responsibility, and located throughout the State, are 33 operating correctional Institutions, with approximately 11 of these having reception centers, and 38 conservation camps. Additionally, ten Institutions offer the Disabled Placement Program (DPP) and nine offer Enhanced Outpatient Programs (EOP). Within 28 designated Institutions, a mental health program for Correctional Clinical Case Management Services (CCCMS) is available, and crisis intervention beds have been established in 17 Institutions. There are two Institutions designated for those inmates with mental health needs while serving time in Security Housing Units. Contracts are used to perform services not available with institution staff. Each institution operates as a city within its perimeter, including a health care and

mental health care program, substance abuse programs, firehouse, facilities management, procurement, personnel, feeding, security, training, and warehousing.

Each institution is responsible for ordering, purchasing, and receiving operating supply needs for all locations within their area of responsibility. Goods received are stored and inventoried in warehouses at each institution to ensure safety, security, and operational needs are met.

The Institutions vary in age, size, program and mission, and require staff to provide 24 hours a day, 7 days a week (24/7) coverage. Due to the nature of the work performed at the Institutions, workers' compensation case costs tend to be high as well as costs resulting from inmate and employee lawsuits.

The food services units prepare three meals daily for approximately 158,000 inmates statewide, which totals an estimated 173,000,000 meals annually, not including special dietary needs which are addressed separately. Food purchasing is done by each institution and received and stored at their respective warehouse located within the institution. The Departmental Food Administrator (DFA), located in Headquarters, provides the policy direction for the dietary assessments and needs of the inmates. This policy making position is also responsible for the development and oversight of the menus prepared for the inmates to ensure that dietary needs are met and are kept within the daily feeding cost per inmate. Special circumstance dietary needs are also overseen by the DFA.

The Department is the largest State transportation entity, driving an estimated 2.8 million miles and moving approximately 250,000 inmates annually between Institutions. The CDC owns and maintains vehicle assets to transport inmates to facilities where they are housed, to receive medical treatment, to attend court proceedings, and other approved appointments.

In addition to the 33 Institutions and 38 conservation camps, CDC provides custody support and transportation to 11 publicly and privately operated Community Correctional Facilities, Community Correctional Reentry Centers, Restitution Centers, Prisoner Mother programs, and Substance Abuse programs. Additionally, six mutual aid Institutions have been designated to provide emergency custodial response in the event of a disturbance.

HEALTH CARE SERVICES PROGRAM

The Health Care Services Division (HCSD), is responsible for administering this program, and has an operating budget of approximately $887 million. It is responsible for overseeing the management and delivery of health care to the inmate population throughout the State. The HCSD employs nearly 180 staff at its Headquarters and roughly 4,900 health care staff at the Institutions. The

HCSD operates four general acute care hospitals, 16 correctional treatment facilities, one skilled nursing facility, and 12 outpatient housing units. Additionally, the HCSD operates three outpatient care programs for HIV/AIDS inmates in every stage of the disease.

In recent years, due to class action litigation, the HCSD implemented a comprehensive mental health services program, which provides acute inpatient psychiatric services and sub-acute inpatient psychiatric services via an Interagency Agreement with the Department of Mental Health. Outpatient psychiatric services via the Enhanced Outpatient Psychiatric and CCCMS are provided in many of the Institutions.

For those services that HCSD cannot provide via civil servants, contracts with community hospitals, physician specialists, and other specialty services are utilized. Expenditures for contracted services reached approximately $251 million in FY 2001/2002.

Each of the 33 Institutions operate a pharmacy which is responsible for the dispensing of medications prescribed by physicians. The pharmacy operations have been greatly impacted by the increase in the number of inmates as well as the standards of care that have been implemented due to litigation.

The HCSD has experienced dramatic growth during the last six years due to an increase in the inmate population, as well as several class action lawsuits regarding standards of care and tracking of inmate medical care. Additionally, advances in treatment modalities as well as new drug therapies have contributed to increased costs for the delivery of care.

COMMUNITY CORRECTIONAL PROGRAM

In Section 3000 (a)(1) of the California State Penal Code, the State Legislature declares "it is in the interest of public safety for the State to provide for the supervision of and surveillance of parolees, including the judicious use of revocation actions, and to provide educational, vocational, family and personal counseling necessary to assist parolees in the transition between imprisonment and discharge."

The Community Correctional Program, commonly known as the Parole and Community Services Division (P&CSD) accomplishes this goal with a budget of approximately $490 million and more than 2,200 Parole Agents assigned to 165 Parole Units operating between San Diego and the California/Oregon border. The parole population in the state of California exceeds 132,000 on any given day. This includes parolees who are on active supervision in the community, in deportation status, and in-custody pending revocation.

The P&CSD provides offenders with supervision, surveillance, apprehension,

support services and referrals to community services to help facilitate successful reintegration into society. The level of service provided to an offender is based on case factors related to the offender's propensity for violence and service needs.

The CDC offers numerous programs to assist parolees in their transition from incarceration to discharge. Those services include, but are not limited to; residential placement, job placement, computer literacy programs, 25 pre-release community reentry facilities for inmates, outpatient services for the mentally ill and substance abuse treatment.

Additionally, services to assist parolees transition from incarceration to discharge, the parole program's public safety mission has been expanded to include intensive supervision for high-risk offenders such as second strikers, high-risk sex offenders and parolees with serious mental illness. The P&CSD manages numerous revocation processing units throughout the State and is involved in special programs that partnership CDC with local law enforcement such as the Police and Corrections Teams, the Law Enforcement Consortium, High Control Parolee-at-Large agents and Gang Intelligence Coordinators.

CENTRAL ADMINISTRATION PROGRAM

The CDC's Headquarters provides executive and administrative services to assure the overall success of the Department with its budget of $5.2 billion. Headquarters has a budget of approximately $300 million and an estimated 4,200 staff, and consists of the Executive Division, Support Services and Field Operations. The Executive Division is responsible for the overall management of the Department and its resources. Support Services provides financial, legal, training, audit, facilities, contract, human resources, procurement, leasing activities, labor relations and information technology services to the Headquarters' staff. It also provides essential oversight to the field offices. The Field Operations oversees the administration of CDC programs and services provided at the Institutions and parole offices throughout the State.

A majority of the staff reside at Headquarters or the Regional Accounting Offices (RAO). Contract services are used to supplement CDC staff in the areas of information technology, project management, and legal services. The CDC Headquarters also manages the design, construction, activation, and closeout for State construction projects using contract and inmate labor services.

The CDC utilizes 840 civil service classifications, represented by 20 diverse collective bargaining units, to provide the services necessary to ensure that the safety and security needs are met and all constitutionally mandated programs and services, i.e., Health Care, Mental Health Care, and Education are received.

SUMMARY

For the past two years, CDC Executive Staff have focused on addressing and resolving critical structural fiscal issues that are contributing factors to the Department's ongoing deficit. This deficit continues to escalate each year. The Financial Services Division (FSD) has provided some relief in terms of systems and procedures and has dedicated staff resources to identify fiscal problems and provide solutions. These efforts provide CDC management with limited information to address complex operational issues. Although they enable fiscal decision-making, policy development, and audit responses, they provide only short-term solutions to a growing problem. The table below provides CDC budget deficit and shortfall history from FY 1997/1998 through FY 2001/2002. This table reflects the increasing need to identify cost drivers.

Fiscal Year	Budget Authority*	Budget Deficit	Increase in Deficit to Budget	Budget Augmentations	Year End Shortfall
1997/98	$3.40 billion	$6.2 million	.2%	$6.2 million	0
1998/99	$3.53 billion	$16.4 million	.5%	$16.4 million	0
1999/00	$3.81 billion	$53.0 million	1.4%	$17.8 million	$35.2 million
2000/01	$3.98 billion	$157 million	4.0%	$105.0 million	$52.5 million
2001/02	$4.24 billion	$254 million	6.0%	$173.5 million	$70.8 million

*General Fund Budget Only

The CDC's mission is clear. Achieving the mission is complicated by the Department's size, geographical locations, staffing, union issues, increasing security requirements and medical needs of inmates who exhibit more long-term mental health illnesses and costly medical conditions, and the requirement to provide a support network of professionals and programs that will enable parolees to successfully reintegrate into society.

3.2 BUSINESS PROBLEM OR OPPORTUNITY

The problem is CDC's inability to track, store, and utilize its operational data, which has negatively impacted its financial, and human resource processes. As stated in the Bureau of State Audits (BSA) Report, dated January 2000; "***The fiscal practices and internal controls of the CDC are inadequate to ensure effective fiscal management and protect the best interests of the State of California;"*** the report further states; "***Poor information has limited management's ability to control and contain the high costs of personnel resources to staff custody staff positions."*** The Department lacks a statewide integrated system that would allow trend analysis, position tracking, and budget

reconciliation that would provide management with the tools to make proactive decisions to affect positive change. These issues result in repeated deficits and fiscal loss to the State.

The CDC faces significant problems in its financial/budget, human resources, and procurement/contract processes. The following issues result in annual deficits and fiscal loss to the State.

Inability to Align Spending Authority with Spending Plans:

The CDC cannot reconcile the triad of allocated funding sources, spending authority, and program expenditures. Thus potential budget shortfalls cannot be monitored adequately for corrective action. The BSA Report dated January 2000 cites this failure as one of the factors causing the Department's estimated $70.8 million shortfall ($254 million deficit for FY 2001/2002, which was reduced through multiple additional funding augmentations). The CDC must now pursue additional deficiency funding to enable the Department to cover outstanding expenditures over and above the budgeted authority for FY 2001/2002.

The ID, HCSD, P&CSD and Headquarters' initial spending plans are first issued in accordance with the population levels established in the Final Budget Summary. Changes to the spending plans related to inmate population coincide with adjustments to the spending authority as reflected in the ensuing Fall Population and May Revision. The spending plans are also adjusted throughout the year when Executive Orders (EO) and Budget Revisions (BR) that impact CDC's spending authority are received.

Initial allotments and adjustments to CDC Program plans are tracked and reconciled manually, resulting in approximately 7,063 hours of unfunded overtime by Headquarters' budget analysts per FY and the managers working arduous hours to ensure the most timely and accurate data is produced. This process is labor intensive, complicated and is susceptible to human error and oversight, especially with high staff turnover (the Budget Unit has experienced a 95 percent turnover rate in the last two years). Additionally, funding via EO's and/or BR's, the Omnibus Bill, or May Revision is contingent upon decisions by the Governor or Legislature. Due to the timing of the State budget process, funding decisions are sometimes received late in the FY. Funding is allotted that is not reflected in the automated California State Accounting and Reporting System (CalSTARS) because it has not yet been allocated through cost distribution. The Department needs to track the impact of outstanding funds by program and line item available at the local and statewide levels. This process is currently done manually which resulted in an estimated 2,000 hours of unfunded overtime during FY 2001/2002 worked by Headquarters' Budget Office staff.

If the practice of manual tracking continues, the Department will be unable to accurately track the variance between funding approved versus departmental spending plans which inhibits the Department's ability to proactively control expenditures that result in a budget deficit.

Key issues in this area involve the amount of staff time spent tracking funding requests and spending plans. The issues are as follows:

1. **Headquarters Budget Analysts spend 7,063 overtime hours annually preparing Initial Allotments and adjusting the Allotments for changes in spending plans related to May Revisions, Executive Orders and Budget Revisions.**

   Spending and funding plan data is manually entered multiple times into stand-alone spreadsheets resulting in repetitive data entry and increases the possibility of data entry errors. Budget changes may not reconcile at each budget change process because of the need to manually validate budget information. Additionally, budget history and backups are performed on disparate computers.

2. **Headquarters Budget Analysts spend 2,000 overtime hours annually, manually tracking Funds requested through the budget change process, not yet received or received and not yet reflected in CalSTARS.**

   This process is currently done manually which provides no continuity of data for all requests made. Funding is allotted to the various divisions and Institutions that is not reflected in the automated CalSTARS because it has not yet been allocated through cost distribution. The Department needs to track funds to ensure they are received and to determine the impact of outstanding funds by program and line-item available at the local and statewide levels.

Untimely and Inaccurate Data:

The Department does not have the timely and accurate data needed to make sound fiscal decisions. Data is often retrieved on a manual basis making it cumbersome and allowing for errors that negatively affect the budget process. It was estimated that the Personnel Offices throughout the Department spent approximately 11,000 hours during FY 2000/2001 manually retrieving data required for budgetary reports. Approximately 80 percent of the Department's $5.2 billion budget is labor. Inaccuracies in Personal Services estimates impact the Department's ability to clearly identify a potential deficit and to be proactive in managing its budget effectively.

The untimeliness of fiscal data adds to CDC's inability to mitigate fiscal exposure. For example, if a permanent intermittent employee works in February

and is paid in March, salary expense information does not show up in CalSTARS until April. The CDC management must estimate labor expenses until the posting is available in CalSTARS. Even when CalSTARS is used as a base, data from several stand-alone systems may be combined to provide current expenditures that may still not provide accurate labor expenses. In another example, each Warden is required to update his or her institution's fiscal projections monthly via the Department's Monthly Budget Plan (MBP). Personal Service's expenditures, which drive approximately 80 percent of CDC's budget, includes salary and wages, overtime, temporary help, and benefits. Actual earnings are recorded in the State Controller Office (SCO) payroll system. The CDC RAO staff updates the CalSTARS database on the 15th of each month. By the 19th of each month, the CalSTARS expenditure data is loaded into the Department's internal MBP. The timeliness of the data in the MBP is contingent upon the monthly SCO Payroll History Tape/CalSTARS interface. Additionally, overtime and temporary help salaries are paid mid-month, which adds an additional lag time. By the time FSD receives an updated MBP, expenditure data is up to 90 days in arrears.

The CDC has eight RAOs and the Headquarters Accounting Service Section (HASS) which coordinate and process payment for the Department's Purchase Orders, Stock Received Reports and Invoices for goods received. Each individual document is received by the RAO or HASS separately and must be "matched up" to its appropriate counterparts to provide the information needed for processing. It is estimated that 4,400 hours, or the equivalent of 25.4 Personnel Years (PY) are worked on a monthly basis, statewide in the RAO's and HASS to process an estimated 22,000 invoices. In addition to staff time, the delays from this time consuming manual process resulted in approximately $563,146 in late payment penalty fees for FY 2001/2002.

As stated in the BSA Report, dated January 2000 it is difficult for the Department to respond to new requests for financial data. For example, the Legislature recently requested quarterly reports from CDC that delineate Personal Services funding appropriations and expenditures by custody and noncustody staff. The CDC staff is unable to provide this report because the process to collect and summarize the data is cumbersome and would have to be completed manually. The summary expenditure report format prescribed by the auditors is not readily distinguished in the current CalSTARS accounting reporting structure. In addition, the recent implementation of the MBP process was established to mirror the CalSTARS reporting structure and does not provide the requested level of detail to complete the prescribed report.

The Department's inability to access and utilize timely and accurate data for projected budget expenditures continues to negatively impact its ability to accurately identify areas of under-funding. This results in problematic budget data that does not accurately reflect a potential deficit.

Key issues pertaining to the problem of not having timely and accurate data are as

follows:

3. **The Personnel Offices in the Institutions spent approximately 11,000 hours during FY 2000/2001 manually retrieving and preparing custody position, vacancy, and salary information required for budgetary reports.**

   The Department lacks a central repository for data required for budgetary reports. Each Personnel Office must manually retrieve and prepare data, which results in inaccuracies in Personal Services estimates. Approximately 80 percent of the Department's $5.2 billion budget is labor. These inaccuracies impact the Department's ability to clearly identify a potential deficit and be proactive in managing its budget effectively.

4. **The untimeliness of fiscal data adds to the Department's inability to mitigate fiscal exposure. Personnel expenditure data, which drives 80 % of the Department's budget, is up to 90 days in arrears.**

   Management must estimate labor expenses until Overtime and Temporary Help costs are posted in CalSTARS. For example, Overtime and Temporary Help worked in February, is paid in March, and posted in CalSTARS in April. Even when CalSTARS is used as a base, data from several sources (Watch Office Tracking System (WOTS), Excel spreadsheets) may be combined to provide current expenditures that may still not provide accurate labor expenses.

5. **Approximately 4,400 hours are worked on a monthly basis by the eight RAO's and HASS, matching the Purchase Order (PO), Stock Received Report (SRR) and the Invoice.**

   An SRR is generated when an item is received in a CDC warehouse. The SRR is then sent to the RAO or HASS. When the invoice is received it must be manually "matched up" to its appropriate counterpart to provide the information needed for processing. After the package is assembled, each document is audited to ensure that the information is complete.

6. **Assessment of late payment penalty fees is to be $561,226 for FY 2001/2002.**

   Payment for some services, such as utilities, requires the invoices to be sent by courier to the Institution for approval and returned for payment to the RAO or HASS. This process can result in payment timeframes not being met and penalties assessed. Delays resulting from the time consuming (manual) process of matching the PO, SRR, and the Invoice by the RAO or HASS

result in delays in meeting vendor payment terms. These delays result in late payment penalties.

7. **The Department is unable to respond to requests made by outside entities, such as those noted in the BSA Report dated January 2000, requesting detailed fiscal reports or quarterly reports that delineate detailed Personnel Services funding appropriations and expenditures by custody and non-custody staff.**

   The CDC staff is unable to provide this information because the process to collect and summarize this report is cumbersome and would have to be completed manually. The summary expenditure report format prescribed by the auditors is not readily distinguished in the current CalSTARS accounting reporting structure.

Inability to Manage Positions:

The Department projected it would spend approximately $58.5 million in Permanent Intermittent Employee (PIE) coverage and $87.7 million in Overtime (OT) above the approved budgeted allotment for FY 2001/2002 in coverage costs for custodial, posted positions. This unfunded expenditure is a significant driver of CDC's reoccurring deficit.

The scheduling of coverage, PIE OT, permanent relief or Vacant "no coverage" for posted positions is an important key to controlling the expenditures for custodial posted positions. In January 2000 the California State Auditor, BSA Report stated, "***The Department has not developed sufficiently complete and accurate management information to help it control costs and allocate resources effectively. Institutions have not adequately analyzed daily custody staffing needs over a period of time, which would help them optimize their use of personnel resources. Poor information has limited management's ability to control and contain the high costs of personnel resources to staff custody staff positions. Specifically, management has not studied daily leave patterns to determine the average level of relief needed to cover predictable absences, nor has it sufficiently linked the use of personnel resources to the Institutions' budget for major needs. Significant errors in categorizing how staff spend their time further inhibit budgeting for, and effect management of, personnel resources."***

To aid in the efficiency of post assignment and relief position utilization, WOTS was developed and is being used by Institution staff. WOTS allows the Institutions to record absences or vacancies created by staff "call-ins," by post, and how each post was filled on a daily basis. However, it does not provide information that would indicate the most cost-effective method of filling a post

i.e., long-term assignment, Temporary Help (TH), redirect or track which post actually incurred the expense (Sergeant vacancy covered by Correctional Officer (CO), the CO is filled by overtime; the overtime shows as the CO) providing a more accurate fiscal picture. The WOTS is not programmed to limit the use of OT if PI custodial staff are available nor does it track the number of consecutive days a post is vacant to alert staff that a long-term assignment may be more cost-effective. Because WOTS provides data "after the fact" the reports must be researched and analyzed to determine how the costs were expended and fail to provide a "real-time" method of identifying a more cost-effective method of filling the posts. While WOTS is a useful tool in making rough fiscal projections and tracking the daily coverage of custody positions, it does not provide "real-time" salary data, easily identify leave usage patterns or an accurate picture of labor expense. WOTS is a stand-alone system and does not interface internally with Personnel Assignments, which identifies posts, incumbent and status, or with the Personnel Office for salary information and pay. The system must be updated manually by utilizing an updated disc with the latest post assignment information and changes from Personnel Assignments on a weekly basis. Although the system captures daily costs of overtime and PI hours it utilizes an average Institutional salary which, does not portray an accurate fiscal picture of the costs necessary to provide custodial coverage. Institutions whose labor pool is tenured have increased personnel costs that are not captured by using average salaries. The ability to project actual OT and TH costs or identify the drivers of the costs expended is essential to ensuring an accurate fiscal picture and to allow management to make budgetary decisions.

Custodial positions authorized in the Governor's Budget, are currently tracked utilizing the Personnel Post Assignment System (PPAS) and Master Roster. The PPAS is a stand alone system operated at each Institution with no connectivity to allow information to be accessed on a statewide basis. Changes to posts and coverage are input manually on a weekly basis. This process is archaic, making reconciliation between the posts and Governor's Budget extremely difficult, time consuming and does not lend itself easily to making adjustments required by budgetary or mission changes. Posts, not authorized in the Governor's Budget, can easily be established as additional coverage adding to the Department's deficit. Changes in employee's status i.e., long-term sick, Workers' Compensation, are also input manually and are not automatically tracked to ensure that long-term coverage of the post is assigned after two weeks. This lack of control results in the daily assignment of OT or PI coverage being used longer than necessary, this continues to add to the deficit in Personal Services. Each institution has its own PPAS, and there is no connectivity to allow for information

contained in PPAS to be accessed on a statewide basis. To reconcile established positions to budgeted authority for the completion of the fiscal year-end processes and ensure that CDC is in alignment with the Governor's Budget there must be a statewide, integrated system that can be accessed by Headquarters.

The CDC Management needs to integrate information regarding positions, salary and posts in order to manage the day-to-day operational needs of the institution, and changes in staff requirements due to mission changes. These strategic and operational changes impact the institution's budget, and have an overall effect on the Department's fiscal picture. The WOTS and PPAS do not interface with Personnel records. When a position is established in Personnel a manual record is made that identifies the reason for its activation. When the corresponding post is established PPAS does not record the origin of the posts. When a deactivation occurs, positions originally received cannot be readily identified due to reclassifications and/or redirections. Personnel staff must manually track the evolution of the position, which makes this process cumbersome and time consuming. Failure to identify these positions may result in the incorrect positions being identified for deactivation, which may be critical to the safety and security of the Institution. In addition, the accurate tracking of positions will ensure vacant positions are identified timely to avoid loss due to Government Code 12439, which resulted in an estimated 53 permanent positions lost in FY 2000/2001.

If these practices were to stay "status quo," the inability of the Department to accurately track the reasons for vacant posts and to fill vacant posts by the most cost-effective method will continue to be one of the most prominent drivers of the Department's deficit.

8. The Department projected it would spend approximately $58.5 million in Permanent Intermittent Employee (PIE) Custodial coverage and $87.7 million in Custodial overtime for the FY 2001/2002 in coverage costs.

To aid in the efficient use of post assignment and relief positions, institution staff uses the WOTS program. It does not provide "real-time" salary data or a total picture of labor expenses. The WOTS does not provide a means to project actual overtime and temporary help costs or identify the drivers of the costs. The information received may be days old, utilizing an average institutional salary, which does not portray an accurate fiscal picture of the costs necessary to provide custodial coverage.

9. **Tracking positions to their origins is difficult, if not impossible, when mission changes or programmatic changes occur. The manual, cumbersome research to determine origin may take five days or more. These strategic and operational changes impact the Institution's budget, which have an overall adverse effect on the Department's fiscal picture.**

   When deactivations occur, positions originally received in the staffing package cannot be readily identified due to reclassifications and/or redirections. Staff must manually track the evolution of a position.

10. **Institutions establish unauthorized posts over and above the authorized positions in the Governor's Budget.**

    The CDC lacks a system, which reconciles actual posted positions to the Governor's Budget of approved positions. Posted positions are established within Institutions to ensure safety and security of the Institution, staff and inmates. Tracking posted positions to ensure appropriate budgetary authority is difficult given the manual process to track and the number of positions established. Tracking positions back to their original authority is complicated given the changes to mission and programs within Institutions.

11. **The Department lost 53 permanent positions in FY 2000/2001 due to the positions being vacant for six months or more per Government Code 12439.**

    The CDC lacks a system, which tracks position vacancies. Vacancy tracking must be done manually, which results in errors and increases the risk of losing a vacant position that could secure a post.

Program Funding:

CalSTARS organizational, program, and activity detail funding appropriations do not track the costs of new programs established by approval of policy, Budget Change Proposals (BCP), or the Legislature. The Department does not have the ability to accurately capture the actual cost of maintaining these programs for accountability of appropriate funding. Rising medical costs, prescription medicines and mandated Legislative mental health programs have resulted in increased "per bed" costs. The identification of potential reductions in the

Department's deficit requires cost models to track and provide various fiscal scenarios based on mission changes, Legislative mandates, physical plant needs and the requirements of caring for an increasingly infirmed inmate population.

Current budgeted levels (6:1 ratio), based on average inmate daily population do not take into consideration operational costs based on diverse missions, security levels and geographical location of the institution. In the absence of timely detailed fiscal data, institution staff is not able to accurately project their annual expenditures, nor is the Department able to capture the drivers of the expenditures to the level needed to allow for the identification of funding shortfalls.

Additionally, due to the lack of integrated processes and systems, CDC is unable to capture the total cost of services related to a program. For example, the costs related to providing health care, including custody staff overtime costs to provide inmate transportation to receive treatment, are currently not being collected and integrated to give CDC total costs of a program. The inability to track program costs results in inaccurate and unrealistic data being projected. This inability negatively impacts the budget and impedes the Department's ability to ensure programs are implemented and managed in the most cost effective manner, identify under funding issues related to all programs managed throughout the Department, and proactively work to make adjustments necessary to mitigate risk of fiscal exposure.

Making fiscal decisions that reduce a program budget without sound fiscal data is detrimental to the safety and security of staff and inmates. Due to legislative and court imposed mandates along with fluctuating inmate daily populations, the staffing, procurement and operational needs of a prison are constantly being modified. Wardens must find a balance between the safety and security of their prison and adjusting their fiscal expenditures to meet the budgeted level. That balance is difficult to achieve without accurate, up-to-the-minute, integrated, operational data.

12. The Department lacks an integrated process and system to capture program costs, "per bed" costs, and services related to a program. Labor intensive, manual research requires up to five days to recover sufficient data to "estimate" costs.

In the absence of timely fiscal data, institution staff is not able to accurately project their annual expenditures, nor is the Department able to capture the drivers of the expenditures to the level needed to respond to BSA audit findings or to provide information needed to more accurately project program costs.

13. Headquarters Budget Analysts spend 2,000 hours annually, attempting to track the budgetary history of programs.

Headquarters' Budget Analysts are often asked to provide history and research for Budget Concept Statements (BCS) and BCPs. There is no central data source or consistent coding by program or function.

Fiscal Audit and Controls:

The Department needs controls to ensure State, Memorandums of Understanding (MOU), and Department policies and procedures are being consistently followed. Lack of adherence to governing rules, as reflected in the BSA Report and other internal and external audits, increases the liability to the Department and poses a threat to the safety and security of staff and inmates. The lack of an integrated system which would provide statewide trend and cost-benefit analysis for management reporting limits the Department's ability to be proactive in addressing fiscal issues. Without "real-time" information, and the standardization and integration of Financial/Budget, Human Resources, and Procurement/Contract Management processes Statewide, it is difficult to nearly impossible for CDC management to ensure that Department and State policies and procedures are being followed.

14. The Department is unable to ensure that adherence to MOUs, and Departmental policy and procedures are being followed.

The lack of an integrated system does not provide "real-time" information or standardization and integration of Financial/Budget, Human Resources, and Procurement/Contract Management to ensure the Department and State policies and procedures are being followed as reflected in the BSA Report and other internal/external audits.

15. Headquarters Budget Analysts spend 2,856 hours annually, extracting, transferring, and manually entering data into summary spreadsheets.

Input data is manually entered multiple times resulting in repetitive data entry and data entry errors. Data is not consolidated in one place. Each analyst must also continuously update records for each institution or program on disparate computers and produce reports as requested.

16. **Headquarters Budget Analysts spend 549 hours annually, manually entering temporary help and overtime data in Schedule 7A worksheets.**

    Input data is manually entered multiple times resulting in repetitive data entry and data entry errors.

Workers' Compensation Case Management:

The CDC's current system provides limited access to historical information which would provide trend analysis data, track aged claims, identify cases for possible settlement and closure, and identify potential areas of concern. Tracking data, such as causes of injury and length of absences, will allow CDC to proactively identify areas and timing of possible exposure, estimated to be $144 million for FY 2001/2002, enabling them to implement measures to manage budget shortfalls. Workers' Compensation claims experience a lag time from the initiation of the claim to the finalization of a settlement. This lag time can be several years and generally results in increased costs pertaining to a particular case as time goes on. The availability of historical data will provide information necessary to determine the appropriate course of action to mitigate continuing costs.

17. **The CDC is unable to identify specific cost drivers of an estimated $144 million for FY 2001/2002 on Workers' Compensation Claims.**

    Currently, CDC must wait for the State Compensation Insurance Fund (SCIF) to provide Workers' Compensation data. The SCIF may not provide all the data necessary to allow management to be proactive in developing a strategy to mitigate costs.

Workload Management:

The CDC is lacking systems or, in some cases using multiple systems, to perform many of its administrative business processes. In addition to the labor-intensive manual processes used in daily work practices, i.e.; number of invoices estimated to be processed by the RAOs and Headquarters Accounting Services Section (HASS) for FY 2001/2002 is 22,000 per month; the number of meal tickets estimated to be processed for cash reimbursement for FY 2001/2002 is 893,000. Departmental staff is frequently taken away from their jobs to respond

to internal/external information requests. Much of the financial and accounting data needed in response to required audits (five major audits within the last year) is gathered manually which is very time consuming and negatively impacts staff moral. When staff return to their assigned duties, the workload has increased and staff continue to get farther and farther behind. These labor-intensive, manual processes cause staff to become overwhelmed with the workload being placed on them. This results in an increase in the number of Workers' Compensation claims and experienced staff leaving, taking their knowledge and skills with them. The FSD experienced a 95 percent turnover in a two-year period as a result of the labor intensive, manual processes required for the MBP. Loss of staff, knowledgeable in budget and accounting procedures and historical departmental processes, results in inaccurate completion of budgetary data compounding the Department's inability to maintain an accurate fiscal picture.

Labor-intensive manual research imposes an unrealistic workload on staff causing turnover, which leads to a loss of knowledge and expertise, and results in inaccurate data being provided for budgetary computations. These practices are inefficient and continue to negatively affect CDC's bottom line.

A business information system that will warehouse current and historical data, standardize business rules and practices, and integrate the work products required to complete requested reports will result in the reduction of errors, provide for a more consistent work output, leverage staff knowledge, improve productivity, and standardize the information required for fiscal accuracy.

18. The CDC processed, on a monthly basis, an estimated 74,417 overtime meal tickets (37,208 hours of staff time) for FY 2001/2002.

The manual process of issuing meal tickets involves staff from managers to the recipient. The meal ticket and travel expense claim passes through as many as six individuals before being scheduled for pay.

19. The FSD experienced an unacceptable 95% staff turnover in a two-year period.

The labor intensive, manual processes that are required by the FSD result in staff job dissatisfaction. Loss of knowledgeable staff, in budget procedures and historical departmental processes, results in inaccurate completion of budgetary data. This compounds the Department's inability to maintain an accurate fiscal picture.

20. Institutional Personnel Offices spent an estimated 11,000 hours in

FY 2000/2001 manually researching data necessary for budgetary reports.

Departmental staff is frequently taken away from their jobs to respond to internal/external information requests. Much of the financial data needed in response to required audits (five major audits in the last year) is gathered manually which is very time consuming, negatively impacts the staff morale and results in workload backlog.

21. **Department Personnel staff manually gather information needed to administer the Departments' Examination Plan.**

Department Personnel staff, manually plan, administer and track examinations for the Department. Examinations are held on a year-round basis and involve all Divisions (Administration, Health Care, Paroles, etc.) as well as all Institutions. Input is received from all Divisions and Institutions as to the classifications that need to be tested. This information is gathered manually from each location. An examination plan is then manually assembled based on available resource hours needed to administer the examinations. Once the examination plan has been approved, bulletins are developed and released, examinations are developed and administered and entered into the State Personnel Board's on-line system to generate notices to candidates and establish an employment list.

22. **Headquarters Office of Contract Services (OCS) staff track all Direct Pay (DP) contracts for the Department. OCS staff process all Program contract requests.**

Program and Institution staff manually track and forward DP Log information to Accounting staff on a weekly basis. Tracking is done at each Institution and Program using an Excel database. Each Institution forwards the log to Accounting which then takes the information (cost codes, vendor information) and inputs it into CalSTARS. As invoices are received, Accounting then pays the vendor based on the invoice and DP information in CalSTARS.

Requests for contract renewals or for new contracts are manually generated by the requesting program and forwarded to OCS for processing. This manual process results in delays for processing and requires staff to submit late justification requests with many of the contracts.

23. Department staff spend an estimated 34,000 hours annually keying personnel information (hours worked, overtime worked, sick leave used, vacation used) needed to track personnel expenditures.

Institution Personnel staff input newly arriving Custody Staff personnel information into PPAS in each Institution. At the same time the information is input into the SCO system. Once completed, a disk with the information is forwarded to the Personnel Assignment Office for downloading into PPAS located in that area. Each day that staff work information must be keyed into a separate system (WOTS) which tracks time worked, sick leave usage, vacations, etc. This information is forwarded to the Institution timekeeper who must merge the WOTS information with the PPAS information to get a complete picture of the usage of staff time. After this is completed, the time keeping information must be keyed into the SCO system for staff payment. This information is up to 60 days in arrears, which does not allow for accurate budget tracking.

24. The Department has approximately 256 "dumb" terminals that are leased from SCO.

The Department spends approximately $120,000 per year to lease "dumb" terminals from SCO. These terminals provide access for Personnel staff to process salary and benefit information as well as time worked for Department staff.

25. All Headquarters and Institution areas are required to track stored records.

All records within the Department must be tracked for type of record, storage area location and destruction dates. This information is outlined in the Departmental Records Retention Schedule. The tracking is done manually. Each month staff must visually inspect all records storage boxes to ascertain if the destruction date as been reached. Once reached, the storing area must confirm if the records are to be destroyed or stored with a new destruction date. The new destruction date is then noted and the records returned to storage.

A Traceability Matrix (Appendix A) links the key business problems described above to the objective CDC is trying to achieve. The last column of the

Traceability Matrix provides the functional requirement the BIS Team will evaluate during the procurement process. The specific benefits of achieving the objectives in the second column of the Traceability Matrix can be found in Section 3.3 and in the Economic Analysis Worksheets (EAW) (Appendix B).

3.3 BUSINESS OBJECTIVES

The project proposed in this FSR is designed to resolve the business issues discussed in the previous section and integrate the collection, storage, retrieval and reporting of information related to the Financial/Budget, Human Resources, and Procurement/Contract Management practices of the entire Department. The Business Objectives listed below solve CDC's previously noted business problems, and will be used to measure the success of this effort. In addition to solving the issues, the project stated in this FSR must satisfy the following Business Objectives.

Note: The reference numbers below correspond to Business Problem or Opportunity previously addressed.

INABILITY TO ALIGN SPENDING AUTHORITY WITH SPENDING PLANS

1. Reduce the time spent preparing Initial Allotments and adjusting allotments by 30 percent.

2. Reduce the amount of overtime expended in manual tracking of spending authority required on a monthly basis by Headquarters Budget staff by 10 percent.

2. Reduce the amount of time spent by program staff to identify the impact of outstanding funds on potential shortfalls from eight hours to 45 minutes per month.

UNTIMELY AND INACCURATE DATA

3. Reduce the number of errors in preparing various fiscal and payroll reports.

4. Reduce the lag time to retrieve information needed for budgetary projections from up to 90 days to five days.

5. Reduce Staff time necessary to reconcile the PO, SRR, and the Invoice by 35 percent.

5. Implement a paperless procurement process that reduces the time it takes to complete the processing of invoices by 20 percent.

5. Reduce the amount of time manually keying vendor file and personnel data into CalSTARS by 25 percent.

5. Eliminate the time required to enter partial payment information into payment logs.

5. Reduce the amount of time needed to process electronic claim schedules by 75 percent.

6. Eliminate the paper processing of purchase orders thereby reducing the amount of late payment penalties by $561,226.

7. Improve the processes that collect, store and retrieve fiscal data to allow the Department to respond to requests to prepare expenditure reports to meet the mandated legislative reporting requirements. Currently, CDC lacks the staff resources to prepare the requested reports (new workload).

INABILITY TO MANAGE POSITIONS

8. Increase the availability and accuracy of the costs associated with posted positions to provide information necessary to substantiate budgetary expenditures.

8. Reduce the amount of Custody OT by 5.5 percent.

8. Enable CDC's management to identify reasons for positions cost drivers and formulate corrective action plans.

8. Reduce the number of incorrect job changes for mid-week changes.

9. Reduce the amount of time required to identify position origins for activations and deactivations from five days or more to one day.

10. Reduce the establishment of unauthorized posts over and above positions authorized in the Governor's Budget.

11. Reduce the number of positions lost through Government Code 12439 by 90 percent by fiscal year.

PROGRAM FUNDING

12. Improve management decision-making and planning by collecting and integrating statewide expenditures that will enable management to determine the cost of maintaining a bed at CDC facilities based upon the facility mission, location, and security level.

12. Integrate processes that collect and store detailed information related to costs of a specific program or event to improve the capability to project funding, deficiencies, and program needs by reducing the time spent manually tracking costs of new and existing programs from up to five days to four hours.

13. Reduce the time required to research information by 10 percent.

FISCAL AUDIT AND CONTROL

14. Reduce the number of unapproved expenditures or personnel transactions that are not in compliance with MOU's, State and Departmental policy and procedures by implementing a statewide, integrated system that will store business rules that control fiscal and personnel transactions.

14. Reduce the amount of unidentified phone charges by 25 percent standardizing the procurement of telephone lines, which is estimated by Business Services at $500,000.

15. Eliminate 100 percent of the manual data entry for "Recaps" and "Annotated 2" documents.

16. Reduce data entry for temporary help and overtime worksheets by 100 percent.

WORKERS' COMPENSATION CASE MANAGEMENT

17. Improve the processes to track and report on Workers' Compensation cases to identify cost drivers and the impact of legislation on the Department's budget relative to Workers' Compensation. This will enable CDC's management to develop a plan to mitigate exposure to Workers' Compensation claims within one year of implementation.

WORKLOAD MANAGEMENT

18. Eliminate the need for paper overtime meal tickets processed for cash reimbursement, reducing the amount of time it takes to process overtime meal tickets by 50 percent.

19. Reduce the amount of staff turnover by 25 percent due to time consuming, labor-intensive manual processes.

20. Reduce the number of hours Personnel Services utilizes to research, prepare, and reconcile various fiscal and payroll reports by 75 percent.

20. Reduce the number of overtime hours spent on work backlog by 75 percent.

20. Reduce the time it takes Personnel Services to manually calculate sick leave and overtime reports.

21. Reduce the processing time for distribution of the examination bulletin and eliminate paper and postage costs.

21. Reduce staff time in obtaining input, consolidating information from the field and inputting data for Examination planning.

21. Reduce the Examination processing time by automating and tracking the manual processes currently in place.

21. Reduce staff time manually calculating hours and costs related to each Examination.

21. Reduce the amount of time needed to access vacancy reports, eligibility lists and lists of existing positions within the Department.

22. Reduce manual tracking of contracts by the institution Contracts and the Service Contracts Sections.

22. Provide institution or program access to the data processing (DP) database.

22. Eliminate Office of Contract Services (OCS) need to issue and maintain the DP logs for DP contracts.

22. Eliminate the manual processing of Contract Renewal Requests for the Institutions and Programs.

22. Eliminate the manual confirmation notification of the Contract Renewal Request receipt.

23. Reduce the duplication of keying into multiple systems (WOTS, PPAS, CLAS, SCO) by combining processes into one system.

23. Reduce the time required to file and retrieve timesheet summaries, PIP II, FLSA sheets by interfacing with SCO, PIP, CLAS, DOF and PERS systems.

24. Eliminate the need for “dumb” terminals by replacing them with PC’s compatible with the operation of BIS while maintaining an interface with SCO.

25. Provide the ability to submit electronic requests for records to be retrieved by Institution or Program staff.

25. Reduce the processing time for tracking records retention schedules by automatically flagging when records are to be destroyed.

3.4 BUSINESS FUNCTIONAL REQUIREMENTS

*Note: Reference number of each Business Functional Requirement corresponds to the Business Problem or Opportunity number and Business Objectives reference number.

To address the above Business Objectives, this project must meet the following business functional requirements:

1. The solution must provide the capability to readily access specific budget allotments from a central database, track allotment changes and flag any variance that prevents automatic reconciliation.

2. The solution must have the capability to identify and track funding and revisions to funding from multiple funding sources.

2. The solution must track the impact of outstanding funds by program and line item on a local and statewide level.

3. The solution must be able to provide a central repository of fiscal information to enable easy access of data for reports in a variety of formats.

4. The solution must be able to provide a central repository of fiscal information: i.e., salary and wages, overtime, temporary help, on a "real-time" basis, to enable easy access of data for reports in a variety of formats.

5. The solution must have the capability to track and close POs and Contracts for goods and services from initiation to receipt from vendors.

5. The solution must provide an integrated system to allow the paperless processing of purchasing documents.

6. The solution must have the capability to track and flag payment due dates and vendor defined payment terms.

6. The solution must have the capability to provide paperless purchasing process.

7. The solution must provide a central repository of fiscal information to enable easy access of data for reports in a variety of formats.

7. The solution must have the capability to report on budget or expenditure information spanning multiple fiscal years.

8. The solution must have the capability to schedule, track and modify post assignments requiring 24/7 coverage, including actual cost of coverage by tracking originating vacancy.

8. The solution must have the ability to provide a roster of available PIE's.

8. The solution must provide the capability to track resources available to backfill posts and send a notification when a more cost effective resource is available.

8. The solution must have the ability to identify posts that are covered by OT/PIE for a specific time frame as determined by CDC.

9. The solution must have the capability to establish and track changes to a position over multiple years.

10. The solution must provide a central repository of personnel information to enable easy access to historical data for reports in a variety of formats.

10. The solution must have the capability to identify unauthorized positions by comparing to the Governor's Budget.

10. The solution must have the capability to limit access for establishing posted positions.

10. The solution must have the capability to set parameters for establishing positions.

10. The solution must have the ability to display 24/7 positions with relief.

11. The solution must have the capability to identify vacant positions and flag dates, based on identified parameters, to prevent loss.

12. The solution must have the capability to track expenditures at the program component and detail level.

12. The solution must have the capability to identify expenditures based on different parameters such as project or location.

13. The solution must provide the capability to readily access and easily extract information needed to satisfy ad hoc query requests. Query by multiple fields is required.

14. The solution must have the capability to store employee benefit rules based on MOU for 20+ bargaining units.

14. The solution must have the capability to store and apply State and Departmental policy and procedures.

15. The solution must provide the capability to issue reports for "Recap" and "Annotated 2" documents, generated by a single automated system that is equivalent to the current documents. Reports need to be generated by anyone with authority to query or print reports.

16. The solution must provide the capability to enter data once and easily extract the information needed to perform 7A reconciliations and to extract data needed for ad hoc queries.

17. The solution must provide the capability to track the reason and cost for Workers' Compensation cases for trend analysis and management reporting.

17. The solution must provide the capability to identify Workers' Compensation costs by facility, unit and/or program.

18. The solution must provide the capability to calculate overtime and generate a meal expense voucher based on 20+ different MOU guidelines.

19. The solution must provide a central repository of fiscal information to enable easy access of historical data for reports in a variety of formats.

20. The solution must provide a central repository of fiscal information to enable easy access of data for reports in a variety of formats.

20. The solution must provide the capability to track and report on personnel expenditures such as salary, overtime, temporary help and benefits on a "real-time" basis.

21. The solution must have the capability to interface with other State agencies systems (SCO, SCIF, DGS, etc).

21. The solution must provide for a central repository of personnel data for tracking examination results.

21. The solution must have the capability to store and apply State and Departmental policy and procedures.

22. The solution must have the capability to track and monitor multiple contracts.

22. The solution must have the capability to track and flag contract expiration dates.

22. The solution must have the capability to track and close contracts for services from initiation to receipt of services from vendors.

22. The solution must provide for an integrated system to allow for the paperless processing of contracts.

23. The solution must provide the ability to key personnel information in once to track personnel budgetary information.

23. The solution must provide a central repository of personnel information to enable easy access of data for reports in a variety of formats.

23. The solution must provide the capability to track and report on Personnel expenditures such as salary, overtime, temporary help and benefits on a "real-time" basis.

23. The solution must have the capability to calculate personnel expenditures (overtime, sick leave, vacation) based on 20+ different bargaining unit agreements.

24. The solution must have the capability to interface with other State agencies systems (SCO, SCIF, DGS, etc).

25. The solution must have the capability to store and retrieve State and Departmental policy information.

25. The solution must have the capability to attach log numbers to records for tracking purposes.

25. The solution must have the capability to route requests for information to the appropriate staff.

25. The solution must have the capability to track dates (initiation, length of storage, destruction dates).

25. The solution must have the capability to electronically notify staff when destruction dates have been reached.

3.5 BUSINESS CASE SUPPORT

Since 1984, CDC has completed 27 major construction projects adding capacity for 114,000 felons. The Department expanded from 10 Institutions to 33 Institutions increasing the operating budget from $238 million to approximately $5.2 billion in FY 2002/2003. In addition to the increase in service capacity, and number of facilities to maintain, the staff required to maintain a secure environment increased from 9,215 to approximately 45,357, as of June 30, 2002. The requirement to provide 24/7 coverage and ensure compliance with bargaining unit agreements has increased personnel service costs in excess of $3.3 billion for FY 2001/2002. The lack of integrated departmentwide systems has hindered CDC's ability to detail, track, control, and report these costs. The CDC has experienced funding deficiencies for the past four FY's. These deficiencies have ranged from $36 million in FY 1999/2000 to an estimated $70.8 million in FY 2001/2002. The CDC's executives and managers must be able to have real-time access to detailed expenditure information to identify the specific drivers of the cost deficiencies, identify areas for cost reductions, stabilize the ongoing deficiencies and to accurately report to the Governor, Legislature and Control Agencies on the Department's $5.2 billion budget. With depleting State resources, statewide freezes of hiring employees, CDC's staff can no longer continue to manage with information that is 60 days in arrears and very limited in the detail that can be provided. Also, CDC cannot comply with the request of outside stakeholders such as the Legislature and BSA to provide the fiscal detail that has been requested due to the limitations of the existing systems. Additionally, CDC completes four major budget processes per year instead of the standard two that most State agencies have to complete. Two of these processes are population based and require the labor-intensive preparation of six 3" binders full of detailed budget change material. The opportunity for error does exist and occurs. An agency with a budget the size of CDC's must have the appropriate information tools to protect the State's valuable resources. The heavy workload and stress of manually managing CDC's budget is accomplished by the Budget Management Branch (BMB). The BMB has experienced a 95 percent turnover in the last two years due to the stress, workload, lack of having time for the appropriate training, and constant budget crisis and drills that continue to occur due to the state's severe economic condition. Valuable staff resources will continue to be lost, until the workload can be remedied and the processes fully automated. The expectations from outside stakeholders will not be met until CDC fully automates its very complicated program's budget.

Inherent with an increase in population, is the increase of aged and infirmed inmates requiring specialized medical and mental health care. New legislation and inmate lawsuits have mandated treatment and care changes that have resulted in policy and physical plant modifications, adding an additional challenge to CDC management who was still adjusting to the rapid growth of the Department.

Institutions built in the early 1900's as well as those constructed in the 1980's require an increasing amount of maintenance to meet the safety and security needs of the Department. These factors have also had a dramatic affect on the Department's ability to manage and control its fiscal resources.

The Department's Executive Staff have evaluated and identified shortfalls in its operational practices. The CDC Leadership Team realizes that systems, procedures and accurate, real-time data are only part of the equation of a fiscally responsible business entity. As a Leadership Team, the staff is working toward influencing a cultural change to make fiscal management inherent in daily operational practices at the program level.

In May 1999 as a result of continuing budget deficits, CDC implemented a review of current management, personnel and financial practices. The initial review at each institution included sick leave, holiday, vacation, and overtime funding and expenditure levels. This review identified a number of causes for the recurring budget deficits, specifically in the area covering custody staff positions for employee absences, and the tracking and management of budget resources for that coverage. The CDC devoted significant personnel and fiscal resources toward the improvement of human resources and financial management practices in the Department since 1999.

In January 2000, the BSA validated these findings in their published report based on an audit performed in the latter months of 1999. This audit criticized the Department on its inability to:

- Manage its fiscal operations;
- Identify specific programmatic costs;
- Report to the Legislature on its financial position;
- Match budgeted funds to actual expenditures;
- Resolve custody staff funding shortfalls;
- Reduce workers compensation costs;
- Determine the total cost of inmate programs;
- Manage its contracts;
- Develop sound fiscal policies, and;
- Track the litigation cases that contribute to high costs.

Many of the audit findings point directly to the lack of integrated business data systems including: human resource management, budget and cash flow management, coordinated and consolidated purchase management, position

tracking, case management, contract management, workers' compensation management, and facilities management. The only solution to resolving these very difficult, costly and long standing Departmental business issues is the procurement of an integrated business information system. This integrated information system will provide CDC executives/managers and the Governor, Legislature, and various control agencies with critical information needed to make sound policy and fiscal decisions.

CONCLUSION

The Department cannot continue to rely on manual processes to track budgetary allotments for its estimated $5.2 billion budget. The inability to align spending authority with spending plans provides an inaccurate fiscal picture of the Department. To continue on a "status quo" basis would result in CDC's continued inability to quantify and provide timely trend analysis reports on those areas responsible for the deficit, estimated to be $70.8 million for FY 2001/2002 (contingent on the receipt of additional funding to reduce it from approximately $254 million). Without the ability to track costs, retrieve data and recover historical information the Department cannot be proactive in controlling its fiscal issues.

The CDC's managerial and executive staff cannot successfully manage a "mega-corporation" in this fiscal climate without the appropriate tools and information about its staff, finances, contracts, facilities, and inventory. They must be able to access "real-time" detailed expenditure information to identify the specific drivers of the cost deficiencies. Additionally, staff needs to identify areas for cost reductions, such as a more cost effective method to fill vacant posted positions in an effort to reduce current overtime expenditures, which are one of the drivers contributing to the ongoing fiscal deficit. Management must also stabilize the ongoing deficiencies, and accurately report to the Governor, Legislature and Control Agencies on its multi-billion budget. With depleting State resources and statewide freezes of hiring employees, CDC's staff can no longer continue to use and manage from information that is 60 days in arrears and very limited in the detail that is provided. Additionally, CDC cannot comply with the requests of outside stakeholders such as the Legislature and the BSA with the fiscal detail that has been requested due to the limitations of the existing systems.

The CDC utilizes antiquated, manual, paper intensive processes and systems, which result in the continuation and potential escalation of the fiscal issues that are the premise of this FSR. The inability to identify funding shortfalls, control spending, identify specific cost drivers of the deficit, and improve operation efficiency has a direct correlation to the safety and security of staff, inmates, the community and the potential for increased liability to the Department. As the inmate population ages, Health Care costs rise proportionately. New legislation and inmate lawsuits have mandated treatment and care changes that have resulted

in policy and physical plant modifications. Additionally, Institutions built in the early 1900's as well as those constructed in the 1980's require an increasing amount of maintenance to meet the safety and security needs of new legislation and legal mandates. Insufficient funding and staffing has a negative affect on the care and incarceration of the inmates. As funding becomes unavailable for core needs of the Institutions, litigation cases for "level of care" increase.

The Department must find a way to improve its fiscal accountability, standardize and improve its operations, control spending and ensure the ability to reach its goal of "truth in budgeting". Through this FSR, the Department has demonstrated that this project is a cost effective and prudent investment in State resources; and if not approved would ultimately put taxpayers dollars at risk, jeopardize the safety and security of staff, inmates and the communities of California, and fail to address the Department of Finance, Inspector General, BSA and Legislature's concerns and issues. In spite of its size, complex programs, and the geographic spread of staff, facilities and offices, CDC intends to regain sound fiscal accountability to proactively manage changes in funding and work toward controlling and reducing the Department's deficit. This is the intent for the basis of this FSR.

4.0 BASELINE ANALYSIS

4.1 CURRENT METHOD (CHARACTERISTICS OF THE CURRENT SYSTEM)

The business functions identified for standardization, streamlining, and automation include: Financial/Budget Management, Human Resources Management and Procurement/Contract Management. Risk Management, Facilities Management, and Business Management will be addressed through the development of a new FSR, which will be developed after the implementation and completion of the above stated functions. These business functions are performed by staff from CDC Headquarters, HCSD, ID, and the P&CSD. Processes unique to a Division will be described in the detailed narrative below.

Subject Matter Experts (SME's) were consulted during the development of the FSR to document over 125 separate "as-is" business process flows covering these functional areas. Due to the size and number of process flows, this section will address the functional areas at a conceptual level. A representative sampling of the over 125 business flows can be found in "as-is" Process Flows (Appendix C).

FINANCIAL/BUDGET MANAGEMENT

The Financial/Budget Management (FBM) System supports and manages CDC's $5.2 billion budget. It is comprised of a set of manual and automated processes that:

- Manage the complex accounting function of CDC;
- Allocates funding to CDC divisions;
- Provides an accounting structure to be used by the Department that is consistent with the Uniform Code Manual (UCM);
- Manages budget projections, expenditure tracking, and reconciliation, and;
- Coordinates and performs audits of accounting practices in the Department.

The processes within FBM include:

- Accounting
  - Contract Accounting;
  - Cost Accounting;
  - Capital Outlay Appropriation Accounting, and;
  - State Operational/Local Assistance Appropriation Accounting.
- Budgeting
  - Annual Budget Preparation;
  - Budget Allotment and Allocation;
  - Budget Reconciliation' and;
  - Monthly Budget Plan.
- Auditing
  - Perform Internal Audits, and;
  - Coordinate External Audits.
- Reporting
  - Budget;
  - Financial, and;
  - Legislative.

The current FBM System does not meet CDC's requirement to provide sound fiscal management and control. The "as-is" process flows reflect time consuming and cumbersome processes. For example, the MBP process requires the RAO to download expenditure data from CalSTARS, to be merged into a spreadsheet by the Headquarters Budget Analyst, which is sent to the Institutions for update. Once the updates are made, the spreadsheet is sent to the Headquarters' BMB who rolls the data up into a summary report. The report is forwarded to the Deputy Director, FSD, and the Directorate. All CDC locations perform a similar process independent from the institution program process. This process is done on a monthly basis and takes about a week to complete. This is typical of a FBM process flow, which points out multiple handoffs, a lack of standard, automated systems, and lack of timely and consistent data. This requires CDC staff to

develop and maintain separate databases to record and track financial budget and expenditure data at local sites.

The cumbersome process causes user satisfaction to be low. Labor-intensive processes lead to job dissatisfaction as quantified in a 95 percent turnover rate in BMB, which has been substantiated through interviews with CDC budget staff.

A number of databases and systems support FBM. Some of these systems are stand-alone and provide no integration of fiscal data. The following is a list of systems identified in the Process Flows:

- CalSTARS;
- Monthly Budget Plan Database;
- State Controllers Office;
- Audit Tracking Spreadsheets;
- OBM Databases, and;
- HCCUP Spreadsheets.

(Note: See glossary of terms for acronym definitions.)

There are no automated interfaces with external systems, which often results in multiple keying of fiscal information.

HUMAN RESOURCE MANAGEMENT

The Human Resources Management (HRM) System supports CDC's 45,357 employees. It is comprised of a set of manual and automated processes that:

- Provide services to the employees of CDC in payroll and benefits;
- Plans and administers a civil service examination program;
- Administers a civil service classification plan, and;
- Tracks and manages Workers' Compensation claims.

The processes within HRM include:

- Adverse actions;
- Attendance;
- Benefits Administration;
- EEO Complaints;
- Grievances;
- Hiring;
- Labor Negotiations;
- License Tracking;
- Merit Salary Adjustment;
- Payroll Interface;
- Performance Evaluation;

- Position:
  - Allocation;
  - Control;
  - Establishment and Change;
- Post Assignment;
- Salary Advance;
- Testing;
- Unfair Labor Practice,
- Wage Garnishment, and;
- Workers' Compensation.

The current HRM processes support basic employee related functions, i.e., hiring, benefits, payroll; however, a means for collecting, storing, and retrieving historical data necessary for fiscal planning does not exist. The system also lacks integrated data, timely notification of changes, and controls to enable CDC management to efficiently manage staff resources. For example, PPAS is established by the creation of staffing packages, or the "Annotated 2," which is reconciled by the Institutions' Associate Warden, Business Services. The staffing package is forwarded to Personnel, which manually creates a Form STD 607 establishing the positions. The staffing package and Form STD 607 are sent to the Post Assignment Lieutenant who identifies post numbers, loads the post information into PPAS and develops an RDO/Relief matrix. Daily job changes are keyed into PPAS; and on a weekly basis, an updated disk is downloaded to WOTS. The WOTS is then used to assign alternate relief coverage in the event of unanticipated absences. This process is performed independently at each of the 33 Institutions. The PPAS and WOTS are stand-alone systems, which require the sharing of information by disk on a weekly basis. This process is cumbersome, time consuming, and results in untimely and inaccurate data for management reports.

The inability to track, monitor, and control the efficient use of posts and relief coverage results in staff frustration. Arduous hours are worked to provide explanations for custodial over-expenditures of overtime and PIE's and ineffective post coverage. In the personnel area staff dissatisfaction is the result of labor-intensive processes, which are used to retrieve data necessary to provide historical information. This is needed for the completion of audit responses, management reports, and trend analysis.

In the Worker's Compensation area to document the injury of an employee requires the employees' supervisor, when notified of an injury, to furnish the Form SCIF 3301 to the employee within 24 hours of the injury. The employee completes the SCIF 3301 and returns it to the Return to Work Coordinator (RTWC) who reviews the document for accuracy. The RTWC completes the OSHA 301 log and forwards it to the Safety Coordinator. The supervisor, after providing the SCIF 3301, investigates the injury and completes

the SCIF 3067. It is then forwarded through the chain-of-command to the RTWC. The Safety Coordinator reviews the OSHA log at the monthly safety meeting and determines if a plan of action is necessary to ensure reduced liability. This process is done with each reported injury. The Department has limited access to historical information, which would provide trend analysis data, the ability to track aged claims, identify cases for possible settlement and closure, and identify potential areas of concern.

The RTWC's excessive workload results in a high level of job dissatisfaction. Comp Watch, an automated tracking system for the tracking of job related injuries, does not supply information necessary to adequately report costs, time lost, and injury trends.

A number of databases and systems support HRM. Some of these systems are stand-alone and provide no integration of personnel data. The following is a list of systems identified in the process flows:

- CalSTARS;
- CLAS;
- PIMS;
- PIP;
- PPAS;
- WOTS;
- ACES;
- On-line Examination System (SPB);
- MIRS;
- VPOS;
- TDC Database;
- Fair Labor Standards Act (FLSA) Calculation System;
- Fair Labor Standards Act (FLSA) Calculation System (7-K);
- In-Service Training and Tracking System;
- Comp Watch;
- Discrimination Complaint Activity Tracking System, and;
- SCIF.

(Note: See Glossary of Terms for acronym definitions)

There are no automated interfaces with external systems, which often results in multiple keying of personnel information.

PROCUREMENT/CONTRACT MANAGEMENT

The Procurement/Contract Management (P/CM) System supports and manages the purchasing, receiving, and inventory of goods, provides asset management and coordinates services and contracts required to maintain CDC's business needs. It is comprised of a set of manual and automated processes that:

- Manage the purchasing, receiving and storing of goods and services;
- Tracks inventory;
- Tracks assets i.e., vehicle, equipment and property, and
- Manage contract information.

The processes within the P/CM include:

- Contracts;
- Issue Contract;
- Track Contract;
- Amend Contract;
- Purchasing;
- Procure Goods;
- Issue Goods;
- Receive Goods;
- Hazardous Material Tracking;
- Return Goods;
- Inventory Management;
- Asset Management;
- Leasing;
- Modular Trailers, and;
- Real Estate.

The current P/CM System does not meet CDC's requirement to provide sound purchasing practices, asset management, contract management, and inventory tracking to control operational costs. For example, the purchasing of goods requires a requestor to identify an item for order. A Form CDC 954 is completed and forwarded to the area supervisor for approval. Once approved, the Form CDC 954 is sent to the Procurement Office for verification of purchase information. The document is forwarded through the chain of command for approval of funds. After approval, the Form CDC 954 is returned to the Procurement Office for processing. The purchase information is transferred to a Form STD 65, which is sent to the appropriate RAO for encumbrance of funds. After the funds have been encumbered the Form STD 65 is distributed to the appropriate areas. This process occurs for each purchase document. The Headquarters BMB, Procurement Unit (PU), also have stand-alone tracking systems to track the processing of purchase orders for all Headquarters and P&CSD. This is typical of the process flows, which point out multiple handoffs, a lack of standard, automated systems and a lack of timely and consistent data. This requires CDC staff to develop and maintain separate databases to record and track purchase and expenditure data at local sites.

The manual processes and duplicate handling of purchase documents increases the workload of procurement staff. This labor intensive process is time consuming at best, thus hampering the workload efficiencies and negatively

affecting staff's job satisfaction. The management of the numerous contracts utilized by the Department are handled by Headquarters, however, the initiation, tracking, and evaluation is performed by Institution and Parole staff.

The P/CM area is supported by a limited number of databases and systems. The following is a list of systems that provide no integration of expenditure data:

- Cal Buy;
- CalSTARS;
- SLAMM, and;
- PCS.
  (Note: See Glossary of Terms for acronym definitions)

There are no automated interfaces with external systems, which results in multiple keying of purchasing, expenditure, asset, and inventory information.

4.2 TECHNICAL ENVIRONMENT

Environmental Factors

There are various factors in the environment within which the proposed solution will be implemented. These factors are described below:

Strategies:

The State's policy requires CDC to use approved State data centers to house mission critical system components. Currently, CDC utilizes the Teale Data Center (TDC) to host CDC systems.

Financial Constraints:

A Spring Finance Letter (SFL) will be submitted for implementation and on going costs. The total project costs must fall within the funding projections and approval limits.

Legal or Public Policy Constraints:

Recognizing the dynamic nature of CDC's policies and legal constraints, the proposed solution must be capable of providing rapid customer updates.

Additionally, the proposed solution must meet the following policy requirements at the time of proposed submission in the ERP process areas below. For all areas procedures and rules in the Departmental Operations Manual (DOM) and/or State Administrative Manual (SAM) may apply:

Financial/Budget Management processes:

- Government Codes;
- GAAP – Generally Accepted Accounting Principles;
- Governor's Budget - structure (program, component, PCA) for CDC organization;
- SAM – budget format, budget process guidelines;
- Budget Letter, and;
- Management Memos.

Human Resources Management processes:

- Government Codes;
- State Department of Personnel Administration (DPA) – classification and pay guidelines;
- DPA Laws and Rules;
- Bargaining Union Agreements – rules and constraints pertaining to employee benefits, pay administration for over 20+ union agreements;
- State Personnel Board – examination laws and rules, and hiring related to the examination process;
- SCO – salary issues, position reconciliation;
- CalPERS - employee retirement system;
- Management Memos;
- DPA – worker's compensation reporting requirements, and;
- Labor code – Workers' Compensation reporting process.

Procurement/Contract Management processes:

- Government Codes;
- SAM - procurement approval guidelines;
- DGS guidelines – vendor information (industry, small business certification);
- State Contracting Manual;
- Material Management Handbook – inventory and property procedures and processes, and
- Management Memos.

ANTICIPATED EQUIPMENT/SOFTWARE CHANGES

The proposed solution must be implemented on a platform that is consistent with the platforms supported by TDC and network infrastructure of CDC. The current Departmental policy is to replace 25 percent of its personal computers (PC) on a

yearly basis. New PCs and printers will be purchased under CDC workstation standards. The BIS Project does not anticipate replacing existing PCs due to this policy. The proposed solution must operate on PCs that may be up to four years old and as such CDC standards will support ERP minimum requirements.

The hardware and software platforms will be determined based on the ERP Solution requirements. The CDC will ensure that these platforms are supported within the organization as well as TDC. The required platforms will consider the needs of the client workstations, application and database servers, WAN and LAN.

PERSONNEL RESOURCES

CDC staff performs the business processes using manual and some automated spreadsheets. Processing is cumbersome, making it difficult to keep up with day-to-day workload. Due to the volume of transactions processed, many areas are experiencing huge backlogs and some activities are not getting done.

High turnover due to heavy workloads, and position reductions over the last ten years have had an impact on CDC's ability to efficiently carryout their business transactions.

As an example, some of the areas in the scope of this FSR have quantified backlog, workload, and listed some of the activities they are not getting to do.

Position Reductions in Previous Fiscal Years:

- 4,444 over approximately 10 years.

Backlog:

- Follow up Payroll Accounts Receivables over 60 days, 976 in number, equaling approximately $576,000;
- Expense advances over 90 days; numbers of advances are over 800 equaling approximately $225,000;
- Claims to reimburse revolving fund (claim schedules to Controller's); over 61 days, number of items is currently 40, totaling approximately $19.6 million;
- Travel advances over 90 days; numbers of advances are 86 currently;
- Catastrophic time bank calendars and posting, and
- Filing and purging of Official Personnel Files.

Tasks Not Completed Due To Workload:

- Associated task reconciliation of Document File D-16, CalSTARS;
- A thorough audit of vendor and employee (travel claims) invoices (recently identified as an audit finding);
- Calculate and pay penalties due to vendors from claim schedules held as a result to deficit;
- Staff training and development that impacts the high turnover rate in accounting employees, and;
- Writing and updating formal procedure (an audit item for BSA and DOF).

Heavy Workload:

- 7,063 overtime hours annually preparing initial allotments;
- 11,000 hours annually manually retrieving and preparing budgetary reports;
- 52,800 hours annually processing invoices;
- 2,000 overtime hours annually tracking budgetary history issues;
- 37,208 hours annually processing overtime meal tickets;
- 2,856 hours annually preparing summary reports, and;
- 8,250 hours annually processing custody uniform allowance.

External consultants cannot provide the business rule knowledge CDC employees possess, but will assist the project in the areas of business process support, technical support, change management, and project management.

4.2.1 Existing Information Technology Infrastructure

CDC Data Processing Systems Currently Used

The CDC staff utilizes many data processing systems to facilitate the delivery of business support services to the Department. However, lack of standardization of data formats makes sharing data electronically impossible among those systems. The result forces CDC staff to reenter the same data into different systems repeatedly, which results in data errors and generates inconsistent information. This greatly increases manual data consolidation of workload and makes it virtually impossible to deliver information in a timely basis. Lack of accurate information on a timely basis makes it difficult for CDC management to control costs and allocate resources effectively. The matrix in Appendix D provides a listing of the "formal" systems in use by CDC staff to support the business processes within the scope of this project. Many "informal" systems such as Excel spreadsheets and paper files also support these processes. These "informal" systems tend to be stand-alone systems and have a tendency to store redundant data in several different areas. For example, the BIS Team identified several different spreadsheets that were used to track budget to actual expenditures. The matrix in Appendix D also identifies the business process flow that utilizes this system, and the recommended solution (maintain, absorb by the ERP, interface, etc.) for each existing system.

CDC Network

There are over 130 CDC locations throughout the State. Administrative offices are located in various Sacramento locations. There are 33 Institutions, four Regional Parole Administrative Offices, eight Regional Accounting Offices and 103 Parole Offices. The CDC network consists of local area networks (LAN) in each office connected to the CDC wide area network (WAN). The CDC WAN provides connections to the Internet, TDC and State Department of Justice (DOJ) Data Center.

CDC/LAN

As mentioned above, LANs are in CDC offices throughout the State. A majority of Institutions have had fiber optic and Category 5 cabling installed over the last eight to ten years. However, not all buildings in all Institutions are connected to the LANs. In addition, some older leased facilities have Category 3 cabling which does not meet the current CDC cabling standard.

Cabling within each CDC location that will require access to the new ERP

Solution needs to be evaluated to ensure that all cabling meets the current CDC cabling standard and will fully support BIS end-user connectivity requirements.

CDC/WAN

Currently, TDC and the Southern Bell Company (SBC) provide the majority of WAN services (Frame Relay and point-to-point connections) for CDC.

The current CDC WAN design and capacity reflects the location and type of systems used by the Department for information processing. Two of the major systems in use are the Distributed Data Processing System (DDPS) and the Interim Parole Tracking System (IPTS). These systems are distributed with mid-range processors located in each Institution and Parole Office. Statewide processing is accomplished via nightly file transfers from the local systems to systems operating in the CDC Data Center. The other major CDC system, the Offender Based Information System (OBIS) is character based and operates at TDC.

New initiatives currently under development or in the planning phase will place new bandwidth demands on the CDC WAN. In order to realize full benefits from the new systems, the CDC WAN must be analyzed and engineered to meet near term utilization requirements and positioned to respond to longer-term demands for additional bandwidth.

The Department must improve its network infrastructure to address the current problems with the architecture, WAN, and network management methodology as well as build the foundation to meet the increasing demands for accurate and timely information.

CDC Internet Connectivity

Currently, CDC has two connections to the Internet. All CDC locations connected to the CDC/WAN access the Internet through one connection. The second Internet connection is for non-CDC entities to connect to the Parole Law Enforcement Application Data System (LEADS).

Remote sites that are not connected to the CDC/WAN but require Internet connectivity are required to use an Internet Service Provider (ISP).

As demands increase for accessing the Internet, security and bandwidth issues are becoming more critical than ever. The CDC's current Internet strategy is to eliminate individual ISP's and to consolidate all Internet access through one Departmental connection.

In summary, reliable adequate bandwidth, a fault-tolerance scaleable network

infrastructure, and efficient network management tools will provide the necessary technical foundation to enable CDC to collect, store, and retrieve reliable cost information in a "real-time" manner. This technical foundation coupled with a business process oriented enterprise solution will enable CDC to enforce business processes standardization and begin to solve its business problems.

In order to use the ERP Solution, the end-users at each CDC location will use the CDC LAN/WAN to access the BIS/ERP applications and BIS/databases.

CDC end-users in the Institutions and distributed administrative sites that are not currently networked were identified during the FSR analysis.

Based on a survey of the 33 Institutions and in discussion with ISD, it was determined that on average, each Institution would need an additional five workstations and 15 networked printers.

5.0 PROPOSED SOLUTION

5.1 SOLUTION DESCRIPTION

The BIS Project effort will result in the implementation of a Commercially Available Off-The-Shelf (COTS) ERP Solution. An ERP is a suite of software applications that manage the resources of a business. The software applications incorporate industry best business practices. These best practices are integrated using modern database management technology, and provide electronic data interchange capability using the latest networking technology to manage an entire organization's business operations. The goal of an ERP is to support one time entry of information at the point where it is created, and to make it available to all the participants within the organization. The CDC information will be available in a "real-time" manner for staff to complete tasks and for management to utilize for the purpose of making sound operational decisions. Normally, an ERP Solution is implemented in modules and data is stored in a central database. Each module addresses one core business operation, such as finance, human resources, or procurement. The data is interchangeable among the modules.

The implementation of an ERP Solution requires a substantial investment in time, money and resources. However, when implemented to solve unsound business practices, the ERP will be a powerful tool for business improvement.

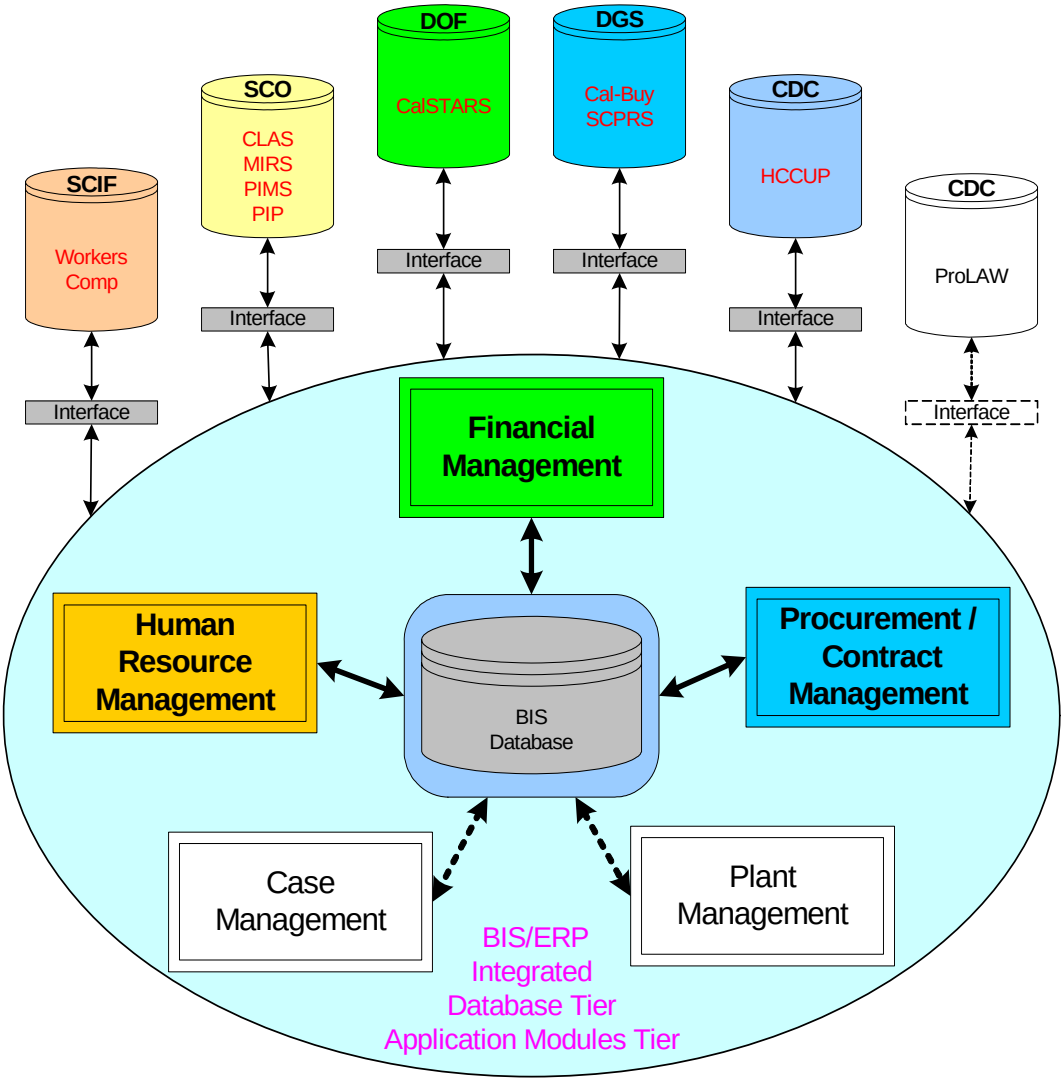
The ERP Solution will be the foundation for the integration of Departmentwide business information systems that will link together CDC's entire business operations, including but not limited to; accounting, budgeting, financing, human resources, procurement, contract, facilities, and construction project management. Moreover, the ERP Solution will build interfaces to connect with internal and

other internal and external State agencies systems to enable electronic data interchange.

The Youth and Adult Correctional Agency's (YACA) goal is to operate the entire Agency efficiently and to ensure fiscal accountability in each Department within its prevue. To meet the Agency's goals, CDC plans to procure a total ERP Solution, implementing the functionality in a phased approach. The first phase will consist of CDC's Financial/Budget, Human Resources, including Workers' Compensation, and Procurement/Contract business processes. These process areas were identified as the most critical to the resolution of the fiscal management issues as validated in the BSA Report, dated January 2000. It is the Department's intent to complete a new FSR for a second phase, which will focus on implementing Facilities Management, Construction Project Management, and Legal Case Cost Management processes. To complete YACA's vision, a third implementation phase will be requested via the FSR process to encompass the remaining Departments and Boards, such as; the Department of Youth Authority, Board of Corrections, Board of Prison Terms, Youthful Offender Parole Board and Narcotic Addict Evaluation Authority.

The following diagram provides a conceptual view of the ERP Solution.

First Phase Functions are identified by solid lines and color.
Future Functions are identified by dotted lines and no color.



The ERP will require and enforce Departmentwide business process standardization, and enable CDC management to retrieve integrated, summary information for forecasting, trend analysis, and management reporting in a "real-time" manner to improve decision-making capabilities.

ERP Solutions can track work items and send a notification to a group or individual for processing due to upcoming deadlines, escalation of overdue activities, or exception processing, just to cite a few examples. These notifications are sent using standard e-mail systems. The BIS Project intends to use workflow functionality to enable the business processes that are implemented.

5.1.1 Technical Platform

Based on current market research conducted by the BIS Team, the proposed BIS ERP Solution will be a 3-tier architecture configured in three layers – a database layer, application layer, and presentation-client layer. The database and application layers will reside at, and be managed by, the TDC. The presentation layer will reside on PCs used by BIS end-users located Statewide throughout designated CDC locations.

The BIS Project intends to implement an ERP Solution on one of TDC's supported platforms. The BIS Team market research results identified various available platforms. However, CDC will select a platform, which can be supported by TDC.

The BIS client PCs will meet CDC hardware and software standards as well as ERP software requirements. Market research validated that this is a viable platform for the client platform. To communicate, the client PCs will require a network interface card to meet current CDC network standard.

The ERP Solution will employ TCP IP as the underlying network protocol for the ERP application and CDC network, including CDC LAN, CDC WAN, and Internet connections.

5.1.2 Network

The CDC network will be a contributing factor to the successful implementation of the BIS Project. The ERP Solution will be the engine driving a modernized flow of business information, and will provide a solid foundation to streamline, automate, and integrate Departmentwide business processes.

The CDC network will enable access to the ERP Solution from anywhere within CDC at any time. It needs to support the daily business transaction data flows, which include updates to the ERP database, as well as the routing of workflow documents. These capabilities are not only core to CDC business operations, but also network centric.

The successful delivery of this mission-critical application is dependent upon providing a network infrastructure that is highly available, scalable, and application-aware, and requires more than just Bandwidth.

- Available: Ensures applications can be accessed from anywhere at anytime by BIS end-users. This means CDC will need to ensure a fault-tolerant network consisting of redundant components, links, and services,

- together with intelligent software capable of ensuring fast, application-transparent detection and recovery around any failures.

- Scalable: Supports the growing number of end-users and other automation systems within the Department. The number of BIS end-users for the initial implementation is estimated to be approximately 3,000 staff. That number is less than 10 percent of the total number of CDC staff. There is a large opportunity for growth in the number of end-users due to enabling staff self-service functions, such as completing time sheets and updating personal information. In order to efficiently manage its mission, CDC not only needs the ERP Solution but other automation systems to directly process inmates. The CDC network needs to be scalable to handle the current and future networking needs of CDC's automated systems.

- Application-aware: Requires the network to have the intelligent capability to recognize, classify, and prioritize the business-critical applications flows, such as the ERP Solution, while still enabling timely end-user access to other applications vital to CDC's operations.

  The BIS Team will be working with CDC's Information Systems Division's (ISD) Network Unit and the Facilities Management Division's (FMD) Telecommunication Branch, and contracted network consultant(s) to evaluate CDC's network infrastructure. It is planned that the evaluation will result in a network redesign and recommended network improvements. It is anticipated that any network management tools recommended in the redesigned solution will leverage the existing CDC network management framework. The redesigned capacities of the CDC WAN and Internet connections will be required to satisfy CDC business data flow requirements, and BIS end-user connection and application requirements as well as CDC's current and future networking needs.

Network Services:

Telecommunications and data center services, such as data transport services, data security (encryption), data storage and hardware support will be required from TDC and SBC.

5.1.3 Hardware

The first phase of the BIS Project will automate CDC's Financial/Budget, Human Resources, and Procurement/Contract processes. This automation will replace the Department's current manual based business methodology. As a result, CDC will need to procure the application, database, and web servers to support the application. These servers will be located at TDC. Additional servers will be purchased to support the development, testing, and training environments. These

processors will be maintained after implementation to support continuous process improvements, end-user training, and custom report development.

	#	Per Server	Notes
Application Servers 150 end-users per CPU			
Low-end Server w/512mb memory	9	1	6 production, 1 test, 1 development, 1 training
Additional Processors	9	1	2 CPUs per server
Additional memory (256mb)	9	2	
DASD, primary disk storage	9	72	Gigabytes (GB)
DASD, secondary disk storage	9	0	
Back-up servers	9	0	
Web Servers			
Server	7	1	6 production, 1 test/ development/training
Database Servers			
High-end Server	2	1	1 production, 1 test/ development/training
Additional processors	2	5	
DASD, primary storage	2	504	GB
DASD, secondary storage	2	504	GB
Dedicated server	2	1	
Database Management System user support fee		$2,400	

A majority of the end-users (approximately 80 percent) currently utilize a workstation and printer. The remaining workstations and printers will be procured to support the ERP application.

To address networking needs, CDC's network infrastructure will be built out as needed to support BIS end-user connectivity. Based upon CDC's ISD preliminary technical estimate, the BIS Project may need to replace approximately 130 network devices to support the migration from "dummy" terminal/mainframe to client server and web-based technology.

5.1.4 Software

The project will procure a customizable COTS ERP application software solution, including database management software, development software, and reporting software.

Network monitoring software is an essential tool, which will provide the means to collect network statistics and enable CDC technical staff to proactively manage

the network. Additionally, more intelligent network management software will enable the routing and prioritization of all network traffic to guarantee the ERP data flows smoothly and in conjunction with other applications, such as e-mail. Finally, intelligent network management tools will enable CDC to provide remote technical support to the field sites and enable CDC to distribute BIS software patches and upgrades from a central location.

5.1.5 Development Approach

BIS Project Development Approach:

The BIS Team will contract with a system integrator vendor to install the ERP software. The vendor will work directly with the BIS Team during the implementation to ensure that best practice processes are put into place, while at the same time meeting the specific business rules and policy requirements of the Department. Since the ERP utilizes industry best business practices, CDC intends to re-engineer its business processes to take advantage of the inherent best practices.

The implementation will adhere to Institution of Electric and Electronic Engineers (IEEE) standards. During analysis, an assessment will be done to identify the differences (gaps) between the existing business process flows and the re-engineered process flows. A Policy/Change Management Team will focus on communicating and training CDC staff on the gaps between the current and re-engineered business processes, as well, as manage an ongoing campaign to ensure acceptance and buy-in of the reengineered processes. The Policy/Change Management Team will also focus on facilitating the resolution of policy issues that will affect the development of CDC's new business process flows.

During design, the software will be configured to enable the re-engineered processes. Since COTS solutions typically require less programming than custom software, the development effort will focus on developing interfaces to external State agency applications, data conversion and custom reports.

The BIS Team will utilize the vendor's recommended ERP implementation and change management methodology to implement the business processes using ERP software.

BIS Network Improvement Approach:

The CDC's staff and network contractor will be responsible for installing the LAN at the Institutions. To leverage off network cabling already installed at the Institutions, CDC's Telecommunications Branch will contract with a engineering firm to test the existing fiber network between the buildings at the Institution sites

and troubleshoot any technical issues found. Existing cabling will be used wherever possible and added or upgraded per the BIS end-user location requirements.

The CDC will utilize consulting services to assess and redesign the CDC network, as well as implementation of the appropriate redesign recommendations to facilitate a reliable and scalable network that supports the current and future needs of the ERP Solution. ISD network staff will work with the BIS Team to develop the technical Request for Proposal (RFP) and specifications to procure network design and installation services to address the CDC WAN.

5.1.6 Integration Issues

BIS Software Integration Issues:

The ERP software implementation will have minimal impact on CDC's current application environment due to a lack of automated application systems. The largest area of impact will be on end-users in the context of automating, streamlining, and standardizing on very labor intensive, manual processes.

The integrity of the newly designed financial/budget, human resource, and procurement/contract processes needs the support of full-time dedicated resources to facilitate the ongoing integration of business rule and policy changes as well as process improvements into the BIS ERP system.

BIS Network Integration Issues:

The redesigned and improved CDC WAN will need to continue to support connectivity for existing automation systems such as DDPS, OBIS, etc.

5.1.7 Procurement Approach

BIS ERP Procurement:

The database application, supporting hardware, installation and configuration services, as well as ongoing maintenance and support of these components will be contracted through TDC. The proposed ERP application, as well as implementation and change management vendor services will be procured through a competitive bid process.

LAN components will be procured using the Invitation for Bid (IFB) process. Workstations and peripherals will be procured as part of the implementation vendor services or separately through the DGS State contracts, whichever is the best value to the State of California.

BIS Network Procurement:

The Department will contract with an outside vendor for network project management, evaluation, redesign, and implementation services. The Department intends to contract for these services in two separate contracts. The first contract will be for technical project management, evaluation, and redesign services. The second contract will be for implementation services. These service contracts will be procured through the State's competitive bid process.

The redesign recommended hardware or software component will be procured from an approved DGS leveraged procurement agreement. The procurement approach will follow all State requirements to include certified Small Business (SB) and Disabled Veteran Business Enterprise (DVBE) vendors in the competitive bid process. Network services (data circuits) will be procured from the appropriate CSGnet provider.

5.1.8 Technical Interfaces

ERP Software Interfaces:

The proposed solution will interface with the following systems:

Financial/Budget Management:

- CalSTARS – account receivable/payable information, and
- Health Care Cost Utilization Program – contract cost information for inmate healthcare provided in the Institutions.

Human Resource Management:

- SCO – position, salary, leave, payroll information;
- CalSTARS – salary advance, wage garnishment, workers compensation, and payroll information;
- California Leave Accounting System (CLAS) – attendance, workers compensation, benefits information;
- Management Information Retrieval System – license/credential tracking;
- Payroll Information Management System – employee payroll information details, license/credential tracking;
- Payroll Input Process – attendance, payroll interface, and

- SCIF – Workers' Compensation information.

Procurement/Contract Management:

- Cal Buy – electronic purchases of statewide goods;
- SCPRS – State Contract and Procurement Registration System.

Additionally, the proposed solutions will replace the following systems currently used at CDC:

Financial/Budget Management:

- SCO Yearly Download/Position Control Process – reformats position information from SCO;
- Travel Expense Claim – travel expense claim spreadsheet, and;
- Monthly Budget Plan – i.e.; expenditure, allotment, reimbursement, encumbrance data from CalSTARS report files and receives expense projections from CDC divisions.

Human Resource Management:

- Employee Record of Attendance – timekeeping;
- Fair Labor Standards Act Calculation System – calculates overtime rates and position control information;
- Fair Labor Standards Act Calculation System, 7K - calculates overtime rates and position control information for custody;
- In Service Training and Tracking System – tracks training for Institution staff;
- Personnel Post Assignment Schedule – post assignment tracking, and;
- Watch Office Tracking System – attendance, custody.

Procurement/Contract Management:

- Controlled Armory Tracking System – tracks weapons and ammunition;
- Property Control System – property management, and
- State Logistics and Materials Management System – inventory management.

The matrix in Appendix D provides a listing of the systems currently used by CDC staff to support the business processes within the scope of this project. The matrix also identifies the business process that utilizes the system, and the recommended solution for each system, such as, maintain the system, absorb the system within the ERP Solution, or interface into the system.

BIS Network Interfaces:

The redesigned CDC WAN will continue to provide interfaces with TDC and SCO to facilitate automated data transfer to and from the new ERP system.

5.1.9 Testing Plan

ERP Software Implementation Testing:

The proposed enhancements will be subject to integration, system, and other tests as required prior to user acceptance testing. The testing will be performed in accordance with a test plan developed by the system integrator and overseen by an Independent Verification and Validation (IV&V) contractor.

BIS Network Testing:

Network contract resources will be responsible for developing the detailed test plan and test case scenarios. The CDC network and telecommunications staff, as well as the contracted resources, will perform tests and evaluate test results. The CDC will be responsible for accepting the test results. An IV&V contractor will oversee network testing.

5.1.10 Resource Requirements

ERP Implementation Resources:

The staff resources required to support the implementation of the ERP Solution will be comprised of CDC business and technical experts, and vendor functional and technical experts. Contract personnel, partnered with CDC resources, will be utilized to configure, test, and implement the ERP Solution, providing end-user change management and training.

BIS Network Resources:

The BIS Project intends to utilize contracted resources to validate, evaluate, redesign, and install network components. Part-time staff resources from CDC's ISD and FMD will participate in these activities.

5.1.11 Training Plan

ERP Software Training:

A comprehensive set of training plans will be developed by BIS Teams to address the implementation, support, and end-user training requirements. The training plans will address the skills and knowledge necessary to use or support the system.

The BIS Implementation Team will be trained on the concepts and overall functionality of the ERP Solution. It is anticipated that this training will occur at the start of the project. Business analysts on the Implementation Team will be trained on the concepts of business process reengineering. Technical Team Members will be trained on specific database query languages of the chosen solution, as well as the technical platform.

The CDC end-users will receive "just-in-time" training on the ERP Solution, as it gets closer to the implementation of business process functionality. This training will cover business process workflow, data input, maintenance, search and retrieval, and reporting requirements.

For planning purposes, the BIS Team assumes three regional training offices that will include training for Institutions, Health Care, Parole and Administrative staff at each location. The costs of providing remote training, as well as travel of class participants has been factored into the implementation cost projections.

BIS Network Training:

Network training will include training on use of new network management tools and any new technologies that may be implemented in the new network design.

5.1.12 Ongoing Maintenance

ERP Software Maintenance:

The TDC will provide data center and ongoing maintenance support for the web, application, and database servers. The CDC will provide support for database, system, and security administration, ongoing development and reporting requirements, and a help desk. Technical staff located at the local sites will provide the first level of support for the ERP software and hardware.

Because ERP Solutions enable ongoing process improvements, it is anticipated that ERP business analysts and technical support will be needed for ongoing

support to address the continual integration of ongoing business rule and process improvement changes into the ERP Solution, as well as the development of custom reports and queries to address CDC and external stakeholder information needs.

BIS Network Maintenance:

The CDC's Network Unit Team and Telecommunications Branch will maintain the communications infrastructure.

5.1.13 Information Security and Confidentiality

BIS ERP Solution Security:

The proposed ERP Solution will require resources to handle user access and maintain existing procedures and methods to safeguard content and integrity of the data. System, application, and data security will be enabled as well as firewall protection of the database and application at TDC. The ongoing maintenance and support organization provides for this resource.

The vendor solution will be required to meet the security requirements as defined in CDC's Information Security Architecture.

The CDC Information Security policy is contained in the DOM Section 49000 and further documented in CDC's Information Security Architecture. The CDC Information Security Officer (ISO) manages the information security compliance program that includes on-site audits of the Institutions.

In defining the appropriate security plan for implementation, CDC will adhere to the following:

- Organizational Security, Policies and Procedures, Strategies, People, Processes, Governance, Legal.
- The State of California Security Policies in the SAM 4841.1 - 4841.8.
- The CDC Information Security policies as established in DOM Sections 49010 - 49060 Article 44 through Article 49.

In accordance with Government Code Section 11771, CDC has designated an ISO to oversee Departmental compliance with policies and procedures regarding the security of information assets. See SAM Section 4840.2.

BIS Network Security:

The current CDC network security provisions will be used with the network improvement. All incoming and outgoing network traffic will continue to be monitored through firewalls both at CDC and TDC. Security patches will continue to be applied to the network (router/switch) software, as well as workstations when they become available to prevent any exploitation of security. Encrypted passwords will continue to be defined for every router and switch connected to CDC's network. A unique community string will continue to be used for the Simple Network Management Protocol (SNMP) (used to monitor network devices) to prevent hacking into the device. Access Control Lists may be used at the router and switch level providing another layer of security.

Furthermore, CDC maintains a permanent privacy policy, in adherence with the Information Practices Act (IPA) of 1977 (Civil Code Section 1798 et seq.), on its sites. This privacy policy covers provisions regarding privacy and confidentiality of data and end-users.

Auditing:

The CDC network engineers will proactively audit and monitor network logs to detect unauthorized network access.

Active Intrusion Detection:

Intrusion detection will continue to be part of the CDC network defense system. Intrusion detection is the process of detecting unauthorized use of, or attack upon, a computer or network. Intrusion Detection Systems are software or hardware systems that detect such misuse.

5.1.14 Impact on End-Users

The ERP will have significant impact on the end-users due to the fact that it will be automating manual, paper-intensive processes and require all CDC staff to standardize business practices and data entry. As a result, BIS Team Members will focus on communicating changes to all CDC end-users, as well as providing training on office automation and the ERP Solution.

The validation and improvement of the CDC WAN and LANs will enable BIS to meet the ERP system response time requirements, as well as provide secure, safe and reliable access to BIS.

5.1.15 Impact on Existing Operations

The implementation of the ERP Solution will have a major impact on CDC operations. It will require functional and technical support skill sets that do not currently exist at CDC. Additionally, the implementation of the solution will change the way CDC currently performs its business processes and requires CDC staff to standardize its business practices. The resources and training requirements for ongoing support of this solution have been included in the ongoing cost projections.

Also, the network redesign would impact ISD by requiring staff to learn new network technology and network management software to support a larger, complex network.

5.1.16 Consistency with Overall Strategy

The BIS Project is in alignment with Business Goal Number 3 in the Agency Information Management Strategy (AIMS). This solution is consistent with the Department's strategic plan, "improve Departmentwide communication, business practices and infrastructure to achieve greater efficiency and effectiveness." This solution addresses the requirement, under this goal, of "achieving measurable improvements in efficiency and/or reductions in cost."

Finally, the ERP Solution will enable CDC to align with State strategies to provide opportunities for e-Government.

5.1.17 Impact on Current Infrastructure

The ERP Solution will impact the technology architecture at CDC. In order to enable all CDC administrative operations access to the ERP Solution, personal computers and printers will be added throughout Institutions, Parole Offices and Administrative Support offices. The CDC network will be assessed and upgraded as required to support the data transmission requirements of the ERP Solution.

5.1.18 Impact on Data Center(s)

The proposed solution will require TDC support for implementation and ongoing maintenance and support of the application, web and database servers. These costs have been factored into the ongoing support costs.

5.1.19 Backup and Operational Recovery

Data recovery is included in TDC hosting services. The BIS Implementation Team will determine the data back-up cycles via a system service level agreement. The BIS Technical Team and ISD Data Center staff will be responsible for working with TDC to ensure operational recovery of the system in the event of a disaster.

5.1.20 Public Access

The ERP Solution will be used by CDC staff to keep fiscal, employee and asset information, which are required to operate the Department. It is anticipated that there will be no "public" access to the system.

5.1.21 Costs and Benefits

The CDC expects to spend approximately $73 million on the implementation of the ERP Solution and approximately $13 million per year on ongoing maintenance and support of the system.

It is anticipated the ERP Solution will result in approximately $11 million in process improvements and cost avoidances, as well as additional savings in resulting from the resolution of inefficient use of CDC custody resources, approximately $10 million.

The CDC expects to see a return on its investment in approximately five years after implementation of the first phase, which is expected to take approximately 2 ½ years.

5.1.22 Sources of Funding

The BIS Project is proposing to use a combination of vendor financing and General Fund augmentation sources to fund the project.

5.2 RATIONALE FOR SELECTION:

The CDC is a complex, multi-mission Department with Parole Offices, Institutions and Administrative Offices located throughout the State. The issues of managing expenditures for sick leave usage, overtime, and program costs continue to plague the Department and are reflected in the ongoing escalating budget deficit. The need to isolate and identify the specific drivers of the deficit and provide managers with the means to collect, store, and report on fiscal data to control expenditures has become critical. Timely and accurate data on a "real-time" basis from all the field offices and Institutions would enable the Department to perform "what if" scenarios to project costs and identify deficiencies more effectively. Consistent and efficient use of all personnel

resources is predicated on providing relevant management information to the appropriate decision-makers on a timely basis.

An analysis of CDC's business processes validated a lack of automated systems and standard business practices. Labor-intensive manual processes, Excel spreadsheets and multiple "stand-alone" databases are used to manage CDC's resources. This results in inconsistencies in the application of business rules and controls, increases in error rates, and provides no accurate or efficient means to control spending, identify drivers of the deficiency or allow for the use of historical data in fiscal trend analysis. The lack of automation and integration of CDC's financial/budget, human resource, and asset resource data on a Departmentwide basis, does not provide accessibility to information required for sound fiscal decision-making by CDC's Executive Management.

The procurement and subsequent implementation of a customizable COTS, Solution from an established contractor provides the most cost effective solution to CDC's critical need for timely and accurate tracking and information retrieval of fiscal data.

To provide further validation that a COTS ERP Solution would meet the complex needs of CDC, an informal market survey was performed. California State Agencies who have either implemented an ERP Solution or are in the process of implementing or procuring an ERP Solution were contacted. Lessons learned, pros/cons, successes and failures were discussed at length to provide the Department with information necessary to avoid similar pitfalls. Other States and companies, some operating worldwide, utilizing ERP Solutions, were identified and researched to determine the depth and breadth of the systems providing additional confirmation of the capabilities of a COTS ERP Solution. The vendors who provided those solutions were invited to present a brief overview of an ERP Solution to determine if these systems could meet the essential needs of CDC. Two vendors participated in the marketing demonstration, and the BIS functional experts concluded that an ERP Solution could meet CDC business process requirements.

The ERP Solution is the most cost effective approach to solving CDC business problems. It enables CDC to standardize its business practices across all Divisions, enforces consistent application of business rules, and provides for integration of CDC's fiscal and human resource data Statewide.

5.3 OTHER ALTERNATIVES CONSIDERED

5.3.1 Continue with Current Methodology:

This alternative is neither feasible nor practical. The CDC is projecting, in FY 2001/2002, a budget deficit of approximately $70.8 million after several funding augmentations. Based on the lack of automation and integration of CDC resource data Departmentwide the specific drivers of the deficit cannot be identified. Reports necessary to support numerous expenditures are difficult to develop and the research required is performed manually. This "labor intensive process" results in a backlog of work, staff burnout, and a lack of retention of

experienced, knowledgeable staff, which further exacerbates the problems identified.

5.3.2 Utilize Multiple, Stand-alone, Non-Integrated Systems:

Multiple systems (including centrally supported, Excel spreadsheets, and Access databases) which are not integrated, for a Department which has facilities and offices Statewide and is required to manage a multi-billion dollar budget are costly, inefficient and do not provide CDC's Executive Management with the tools necessary to track, on a Departmentwide basis, expenditures and identify specific drivers of the Department's deficit. The inability of the Executive Management to review and analyze data on a Statewide basis inhibits their ability to make sound fiscal decisions. The establishment of individual systems within each Institution, Parole Office, and Headquarters would increase the need for additional staff to consolidate the information from each system for required reports and analysis, maintain each system and ensure all updates to the software are received and implemented. This alternative also adds to the number and cost of IT resources to support these systems and manage any interfaces developed to consolidate data. Collecting data and integrating the information for fiscal reports needed for forecasting funding needs based on expenditures would be time consuming and increase the risk of errors. Information needed by CDC Headquarters to project deficiencies and identify drivers would be fragmented and would not reflect "real-time" data. This alternative would continue the Department's inability to identify programmatic costs and drivers of the deficiency, provide timely and accurate data and track funding sources.

5.3.3 Utilize Multiple Regionalized Systems:

Normally, multiple regionalized systems would provide lower performance than a centralized system, and cost the Department additional financial resources for installation, implementation and on-going maintenance. Costs would be increased for the purchasing of additional computers (personal computers and servers), related networking equipment, software licenses and increased project initialization cost.

The actual cost would be based upon how many regionalized systems would be replicated, the platform upon which they would operate, and the required Bandwidth based upon amount of data being processed. It is difficult to accurately cost out the system with these unknowns.

The primary advantage for using a Multiple Regionalized System is that only one region's business will be impacted if a server goes down. Some of the disadvantages are:

- Data would be unavailable on an "on-time, real-time" basis due to the data being stored in a regional database. Additional staff would be

needed to consolidate the information from each regionalized system to provide CDC's Executive Management with the Departmentwide data needed to project expenditures and identify specific cost drivers increasing the possibility of errors and inaccurate projections.

- Costs would be increased due to the need to build and maintain multiple sub-data centers.
- To achieve integration and consolidation, all the regionalized database servers must periodically communicate and synchronize.
- Multiple systems would result in a need for increased user support, potentially increasing the response time needed for end-users.

5.3.4 Utilizing Other State Agencies "best of breed" Automation Systems

The BIS Team contacted State Agencies during the development of the FSR for the BIS Project. The BIS Team learned that some State Agencies have implemented automation systems and some State Agencies are currently planning to implement automation systems. The following table provides a brief overview of the automation systems of the four State agencies.

Agency	Software	Modules	Status	Users
DMV	Oracle	-General Ledger -Accounts Payable -Procurement	Implemented	6,000
DWR	SAP	-Budget -Cost Accounts -Human Resource -Material Mngmt. -Purchasing -Plant Maintenance -Fleet Administration -Project Planning -Training & Events -Bar Coding -Contract Pricing	Implemented	400-600 core users 2,700 casual users
CalTrans	PeopleSoft	-Time and Labor Proposed modules: Finance	Implemented Planned and Concept	23,000 users
SCO	Legacy System	Proposed module: Human Resource	Planned and Concept	Undetermined

To utilize other existing State Agencies' automation systems, where appropriate, may save money and time instead of developing an automation system by each agency individually. To consider the "Best of Breed" strategy, assume that CDC will utilize the ERP Solutions (DMV's automation system for the Procurement; DWR's for the Budget, Material Management, Human Resource, and CalTrans'

for Time Keeping), and SCO's Legacy System for the Human Resource Payables.

The following section will compare the "Best of Breed" strategy with the proposed BIS strategy. The comparisons are focused on **cost savings, solving CDC's business problems, risk, and complexity**. The conclusion of the high-level analysis of the "Best of Breed" solution, with the details supporting the conclusions is listed below.

Conclusions of the "Best of Breed" strategy:

- **Theory:**

The theory for this strategy is possible because every State Agency has similar business processes, such as Human Resource, Procurement, Time Keeping, and Payables. Ideally, all State Agencies will get the functionality that they want with the heterogeneous systems.

- **Technical:**

This process is more complex because all four agencies are utilizing four different vendor systems. Each system has its own architecture, and its own data formats. Additionally, those systems were designed to focus on their own business processes not considered to share data with other external systems. Thus, electronic data interchange would be a big challenge and time-consuming implementation processes. As a result, data consistency and integration will become serious problems.

- **Economical:**

It is difficult to predict savings. The probability is high that this process will cost more because CDC still has to purchase software licenses, workstations, network equipment, and leasing fees for using the statewide network infrastructure. Again, CDC staff still has to manually analyze and integrate information piece-by-piece from the heterogeneous systems. The cost may be prohibitive, probably in the millions of dollars, to develop an interface program to allow four systems to communicate electronically. Additionally, it will be very expensive to keep the four systems synchronized when changes or upgrades are made to any of the four systems.

- **Time:**

This process could take much longer since CDC would have to deal with four agencies and four different systems during the implementation phase. The CDC still has no capability to get Departmentwide "real-time" expenditure information and still has to rely on manual analyzing,

integrating information, and preparing reports.

- **Risk:**

The risk level is much higher because the data has been stored piece-by-piece without relationship into four different systems, which makes data verification more difficult. Additionally, data authorization control will be very difficult to implement and monitor.

- **Reality:**

Unfortunately, as originally thought, this process is not good for CDC because it cannot solve CDC's business problems identified in the previous sections of this FSR. The CDC would continue to be unable to obtain "real-time" "truth in budgeting" information. As a result, the complexity, timing, risk, and cost of the "Best of Breed" strategy will far outweigh the benefits.

The detailed comparisons are as following:

- **Cost Savings**

Cost savings should be one of the major goals for any automation system. The cost of the BIS Project can be categorized as network infrastructure, hardware, software, and support staff. The cost saving comparison for the "Best of Breed" strategy follows:

- **Network Infrastructure Cost**

The network infrastructure is the foundation to using any enterprise automation system. The "Best of Breed" and BIS Project will use centralized databases, regardless of whether they reside at the TDC or another Agencies' site, and the Statewide network system – Frame Relay handled by the DGS and the SBC Communication Corporation. Regardless of whether CDC uses DMV, DWR, CalTrans, SCO, or the BIS automation system, CDC will still be obligated to spend money to lease the Statewide network system. The CDC will still have to spend money to build local network infrastructures at each field site. In order to support nearly 3,000 proposed BIS end-users, CDC will be financially obligated to spend money to lease network equipment at either TDC or another agency site.

- **Hardware Cost**

The hardware cost can be deferred into the cost of workstations and

servers.

Workstations:

The CDC has to spend money to purchase workstations for end-users regardless of which automation system they utilize.

Servers:

The possibility exists that CDC might be able to share other Agencies' servers as long as the servers have extra capacity to support other Agencies, especially an agency as large as CDC with 47,000 employees. More staff means more business activities. More activity requires more power for those servers to handle all of the data requiring processing. To support more online users, those servers may require an upgrade because they were initially purchased and configured based on those agencies' business needs. The upgrade may be as simple as adding additional devices or it may be as complex as purchasing new higher-range servers and re-configuring the whole server working environment which could raise more issues, such as additional data center space, additional power and uninterrupted power resources, additional network equipment and network wiring system to handle increasing throughput requirements. Additionally, different agencies may use different server platforms, such as different hardware manufacturers and different network operating systems that will increase the complexity of the upgrade to and may cost CDC more to pay for different staff expertise required to support the different network platforms.

- **Software Cost**

The software cost can be categorized as workstation software, network server, and database server.

Workstation Software

The CDC must purchase operating system software for each workstation regardless which automation system is ultimately utilized.

Network Server Software

The major cost for network server software is the Network Operating System (NOS). The cost is dependant on the version or edition of NOS being used. Different versions or editions of NOS have different functionalities, capacities, and costs. Generally, supporting more online users will require using a higher-level NOS, which equates to additional cost.

In order to access centralized databases, the first step is to establish network connection between the client and a network server. The next connection will be from the network server to a database server. There is the cost to enable a client to connect to the network server Client Access License (CAL). Regardless of the network server the client connects to BIS or another Agency, CDC still has to buy a CAL for each online workstation. For CDC to meet the objectives in its business case, which is to effectively control Departmentwide expenditures, CDC has to get expenditure data from all databases simultaneously, such as Human Resource, Financial, and Procurement databases. In the "Best of Breed" strategy, such data will be stored in several other State Agencies' databases. The CDC will have to spend more money to purchase different types of CAL for each network server connection to enable access to those network servers. In the BIS Project, all of the databases will be housed at a single location, the TDC, and all client network connections will go through one network server, and a single type of network platform. The CDC will only need to buy a single CAL for connectivity to one network server instead of having to buy multiple types of CAL to connect to each Agency's network servers.

Additionally, other network server software will be required for maintenance, such as backup, Uninterrupted Power Supply (UPS), and firewall. The CDC may be able to continue to use the current maintenance software or could be required to upgrade depending on whether it needs to replace NOS or not. It is possible that CDC will have to spend money to purchase new software. The cost for the maintenance software is relatively cheap in comparison to the costs for NOS and CAL; however these costs are not included in the current business case.

- **Support Staff Cost**

The support staff can be grouped as field support staff and system support staff.

Field Support Staff

In the proposed FSR for the BIS Project, there will be 33 new field support staff positions, one for each Institution. The "Best of Breed" and proposed BIS Project will require an increase in workstations to CDC field sites to allow end-users to access online data. More workstations will require more support staff regardless of which automation system is being used, and potentially increases the complexity of providing support. The

proposed BIS Project will use a single ERP application, meaning an identical configuration for all of the workstations. In the "Best of Breed" implementation, one user may have to access several State Agencies' automation systems, which may require several different configurations for one workstation because each automation system is using a different database system, i.e. DMV is using Oracle; DWR is using SAP; CalTrans is using PeopleSoft; and SCO is using a legacy mainframe based system. Those database systems cannot directly interchange information automatically because they use different architectures. Also, there will be issues concerning proprietary rights. For example, more than 90 percent of the PCs are using Windows, however, Microsoft never releases the Windows source code. Without investing a large amount of money and time to develop a customized integrated interface program, the workstation has to have several different configurations to enable it to connect to different database systems. More configurations mean more complexity. More complexity requires hiring more technical support staff, which means more money or additional staff to support several different applications, separately.

System Support Staff

In the proposed FSR for the BIS Project, the system support staff will support one company's ERP System, on one network server environment at one location. In the "Best of Breed" strategy, the system support staff has to support multiple agency database systems with different architectures running on different network platforms at different locations, which will greatly increase complexity and difficulties for supporting staff. Additional staff may be required to support different network platforms, database systems and applications.

- **Solving CDC Business Problems**

The CDC's major business problems have been addressed in the previous section of this FSR. The CDC has considered the "Best of Breed" strategy from an information-processing point of view.

The current CDC business problems could be concluded as follows:

- All relevant information is being processed by different automation systems in different formats (i.e., WOTS, PPAS, HR Timekeeping).
- Integrating and analyzing information relies on time-consuming manual processes.
- Lack of accountability information will not enable CDC to reach the critical goal of "real- time" "truth in budgeting."

The underlying cause of those problems, from an information-processing

viewpoint, is that there is no automation system capable of automatically collecting and integrating relevant business information from CDC Statewide sites. The CDC requires an automated system that will provide a seamless effort to manage the drivers of our ongoing fiscal deficit. For example, staff is currently using independent systems to manage 24/7 posted positions throughout all of the Institutions. In order to better manage these positions, CDC requires a system that will enhance the process of filling vacant posted positions by linking all of the necessary data together. This capability will allow staff to identify the most cost efficient means by which to fill vacant post assignments by integrating employee status information into one database, thus reducing backfill costs.

In the "Best of Breed" strategy, all relevant information will still be stored piece-by-piece into the different systems using different formats. The CDC still has to manually collect and integrate Departmentwide expenditure information. The CDC still has no capability to get "real-time" financial information; and CDC still has no way to reach the critical goal of "truth in budgeting." As a result, the "Best of Breed" strategy could not solve the CDC business problems as listed above.

- **Risk and Complexity**

One of the criteria of an FSR for an automation system is to evaluate the potential risks. As such, potential risks for the "Best of Breed" strategy could be expected as follows:

- **Data Integrity**

It is possible to misplace information because the data has to be keyed into more than one system, which is not only inefficient but will also generate data redundancy which will cause potential data integrity problems. For example, one set of procurement data will be input into the DMV procurement module and the money being spent will need to be manually input into the DWR cost accounts module. There is no database relationship between both systems. Later if the purchase order has to change for some reason, the CDC user has to change the data in the DMV database and at the same time has to remember to manually change the relative record in the DWR database, too. The CDC has no effective way to track the impact of the procurement process on the financial module.

The BIS Team contacted the Department of Corrections in Canada to discuss the implementation of their automation system. Their implementation was divided into three phases, and they implemented three different database systems from three different vendors. The end result was very painful as they shared the lessons learned with the BIS Team.

All three systems are using different formats and cannot talk with each other, which caused an increase in staff time for re-input, re-output, analyzing, assembling, and integrating data.

- **Increasing Complexity**

Analyzing information from different systems will increase complexity and staff time. The CDC staff will have to use computers to process business information through those agencies' automation systems, and later, will have to manually analyze and integrate data because all of the information will be piece meal with no way to automatically establish the relationship among the data. The CDC will still have no way to get "truth in budgeting."

- **Interface Program**

Another idea for using the "Best of Breed" strategy might be to develop an interface program to communicate with those Agencies' systems.

It is very complex to develop an interface program that can communicate with all of the relative Agencies' automation systems, such as DMV (Oracle), DWR (SAP), CalTrans (PeopleSoft), and SCO (Legacy system). Even though the communication has been established to enable input of data into those database systems, the relationships among the data will be lost. Without those relationships, the data is meaningless. Therefore, technically, there is a very high risk and cost to develop and maintain such interface programs.

Using the California State University (CSU) Common Management System (CMS) as an example, as stated in the BSA Report of CSU, dated March 2003; *"The university's stated intent was to minimize cost by limiting the modifications to the vendor software to those needed to meet its business needs."* The BSA Report further states; *"Additionally, it often must continue to reapply modifications when the vendor software is updated, increasing maintenance costs."*

It is predictable that the ongoing updating and maintenance for the "Best of Breed" strategy will be even more complex, risky, and costly than the CSU CMS because the system is using one vendor application on a single network platform. The "Best of Breed" strategy will have to deal with multiple vendors' different network platforms and different applications. Typically, unlike the Legacy System, the modern software, especially ERP Solution software, will need to be updated on an ongoing basis every 18-24 months to enhance business-processing functions. The CDC will have to modify the interface program when one of those agencies updates their software. It will be very expensive and difficult for CDC to keep

synchronization when changes are made to any of the four systems. Additionally, the data housed in the database of CMS belongs to CSU but in the "Best of Breed" strategy the issue of data ownership will need to be resolved first.

6.0 PROJECT MANAGEMENT PLAN

The BIS Project's managerial structure is designed to support the organizational needs of the project while meeting governmental requirements of Control Agencies, and Departmental Management.

To accomplish this goal a BIS Project Director (PD) will have direct responsibility for the overall implementation of the BIS Project. A Vendor Project Director, acting as the prime vendor, will report directly to the BIS Project Director and be responsible for managing all vendor contracts related to the chosen solution. Additionally, Project Managers focusing on the business process, end user, administrative, policy, and change management areas of the project, the technical aspects of the project will report directly to the BIS Project Director. A Vendor Project Manager will report to the Vendor Project Director and be responsible for the vendor's day-to-day project activities. The qualifications required for these positions are based on the unique characteristics of the project and the level of oversight required, ensuring timely and successful implementation. The required qualifications for each position are outlined below.

6.1 PROJECT MANAGEMENT TEAM QUALIFICATIONS

BIS Project Director (CDC)

The BIS PD will maintain ultimate responsibility for the implementation of the BIS Project. The BIS PD will lead, guide, and direct the activities of the project, and work with internal and external stakeholders, control agencies, and contractors to mitigate project risk. The BIS PD will be responsible for ensuring policies addressing any "gap" in the software and current business practices are created or modified in a timely manner so as not to jeopardize the successful implementation of the project. The BIS PD will facilitate all of the highly sensitive aspects of the project ensuring executive level relationships and alignment with internal and external stakeholders. The BIS PD will report directly to the Executive Project Sponsor (EPS) with indirect supervision from the Youth and Adult Correctional Agency (YACA), and will chair the BIS Executive Steering Committee (ESC).

The BIS PD must possess a clear understanding of the scope and long-term vision of the project, including CDC's business processes that will be improved through this effort. The BIS PD will work with peer level staff to mitigate risk and ensure

stakeholders support the implementation. The BIS PD must possess strong management and communication skills, and experience in managing large multi-disciplined and complex line organizations.

CIO (CDC):

The CDC CIO will oversee the technical support to the BIS project. The CIO will provide support to the BIS Project Director and participate in the resolution of technical issues and risks. The CIO participates on the Executive Steering Committee.

BIS User Project Manager (CDC):

The BIS UPM will report directly to the BIS Project Director and be responsible for managing the day-to-day administrative and support activities of the project. The BIS UPM shall be responsible for managing the administrative scope of the project, and identifying, tracking, and mitigating project risks. The BIS UPM shall be responsible for managing all vendor contracts and project schedules, ensuring CDC project milestones are met and deliverables are completed to CDC's satisfaction, project budgeted to actual expenditures are tracked, and all project reporting is completed on-time and according to the reporting requirements. The BIS UPM shall be responsible for coordinating the selection, recruiting, and training needs of CDC staff resources in a timely fashion to meet the needs of the project. Staff resources shall include, but not be limited to, temporary and permanent staff selections. Additionally, the BIS UPM shall direct the activities assigned to the numerous Subject Matter Experts (SME) required to assist with the development and implementation of this project and will prepare the agenda and meeting materials for and attend the BIS ESC meetings.

The BIS UPM must possess a clear understanding of the scope of the project to ensure appropriate CDC participation, and State and CDC policies and procedures to secure project resources according to schedule. The BIS UPM must possess strong administrative, management, and communication skills, and experience in managing large multi-disciplined and complex line organizations.

Functional Project Manager:

The BIS Functional Project Manager (FPM) will report to the BIS Project Director and be responsible for managing the multiple functional team activities. This role works closely with the BIS UPM, TPM, and Vendor Project Manager to ensure the successful implementation of the business processes and CDC and State business rules in the ERP Solution. The BIS FPM, along with the BIS UPM shall ensure the project is completed according to schedule and involves the appropriate business or technical subject matter expertise. Prior to implementation, the BIS FPM will work with the BIS UPM to ensure specific business process changes are incorporated into training and communications

modules. The BIS FPM will report to the BIS PD and attend the BIS ESC meetings.

The BIS FPM must possess a clear understanding of the scope of the project, including CDC's business processes that will be improved through this effort. The BIS FPM must possess strong leadership, management, and communication skills, and experience in managing large multi-disciplined and complex line organizations.

Technical Project Lead:

The Technical Project Lead will be responsible for leading the technology aspects of the project including setting up and ensuring quality of the development, test, and production environments. The Technical Project Lead (TPL) will work closely with the TPM and external stakeholders to ensure appropriate technology resources to support project activities. The TPL will report to the CDC CIO and attend the BIS ESC meetings.

The TPL must possess a clear understanding of the scope of the project, including CDC's underlying technology infrastructure. The TPL must possess strong management and communication skills, and experience in managing large multi-disciplined and complex line organizations.

BIS Technical Project Manager (Consultant):

The BIS TPM reports directly to the Project Director. As the technical liaison to the BIS Project Director, the TPM is responsible for ensuring the project produces the required deliverables to the required standard of quality and within the specified constraints of time and cost. The BIS TPM oversees the creation and delivery of project products, and ensures the deliverables are capable of achieving the benefits stipulated in the approved FSR. Working with the BIS UPM, FPM, and Vendor Project Manager, the BIS TPM oversees production of the Project Plan, attends and works with the BIS ESC to obtain approval of the plan, and monitors the project progress. The BIS TPM is accountable to the BIS PD for overall progress; advises on the use of resources, actively works to mitigate projects risk, and initiates corrective action where necessary. The BIS TPM obtains agreement on the technical and quality strategy from the BIS ESC, and prepares the Project Implementation Evaluation Report.

The BIS TPM must possess extensive experience managing projects of this size and complexity. The BIS TPM must be well versed in the IEEE, Project Management Institution (PMI), and Product Management Body of Knowledge (PMBOK) standards. The BIS TPM must possess experience in industry-accepted, and proven methodologies.

The BIS TPM must possess the technical expertise required to effectively manage all levels of project staff, as well as understand the issues related to the underlying hardware, and technical architecture of the project.

The BIS TPM will report directly to the BIS Project Director and indirectly to the ISD Project Management Office (PMO). The TPM shall be expected to have a close working relationship with the BIS EPS and BIS ESC to ensure that all project objectives are fully met.

BIS-ERP Project Director (Vendor):

The ERP Vendor Project Director (VPD) will report directly to the BIS PD. Acting as the prime vendor, the VPD is responsible for coordinating the contracts and activities of all the vendor resources on the project. The Vendor Project Director will track, document and report milestones and budgetary expenditures, and ensure all timelines are met and any risks identified by the Vendor Project Manager are mitigated. The ERP VPD shall attend the BIS ESC meetings.

The ERP VPD must possess extensive experience managing projects of this size and complexity. The ERP VPD must be well versed in the IEEE, PMI, and PMBOK standards. The ERP VPD must possess experience in industry-accepted, and proven methodologies.

The ERP VPD must have experience as a prime contractor managing multiple sub-contractors on large-scale projects. The ERP VD must possess the technical expertise required to effectively manage all levels of project staff, as well as understand the issues related to the development tool set, the underlying hardware, and technical architecture of the project.

BIS-ERP Project Manager (Vendor):

The ERP Vendor Project Manager (VPM) is responsible for managing the day-to-day activities of the vendor resources on the project. The ERP VPM shall work with the BIS UPM, FPM, FTL, and BIS TPM to develop, track, and manage the day-to-day activities of the project, the scope of the project, and identify, track, and mitigate project risk. The ERP VPM will report to the ERP VPD and attend the BIS ESC meetings.

The ERP VPM must possess extensive experience managing projects of this size and complexity. The ERP VPM must be well versed in the IEEE, PMI, and PMBOK standards. The ERP VPM must possess experience in industry-accepted, and proven methodologies.

The ERP VPM must possess the technical expertise required to effectively manage all levels of project staff, as well as understand the issues related to the

development tool set, the underlying hardware, and technical architecture of the project.

6.2 PROJECT MANAGEMENT METHODOLOGY

The CDC has endorsed a project management methodology and Project Life Cycle (PLC) model, which embraces the tenets described by the PMI and the IEEE. The CDC PLC provides the necessary structure to implement a consistent approach to perform the activities and tasks required for planning, initiating, executing, controlling, and managing the project through its life cycle. These processes clearly define the major activities of a project to ensure the product and service delivered satisfies the customer's business needs. In addition, they will provide a systematic approach and standard methodology for performing the major activities of a project.

The CDC endorses project management best practices that are industry accepted. The CDC uses the most effective project management practices and tools to maximize communication and coordination between all project team members. Effective utilization of its project management practices and tools allows CDC to prioritize and allocate resources efficiently throughout projects. The CDC takes full accountability and responsibility for the completion of projects on time and on budget.

Additionally, CDC has adopted a project approach that includes shared project management responsibilities for the BIS TPM and BIS UPM. This synergetic management structure de-emphasizes the technical issues in order to establish a logical relationship between technical requirements and CDC's business needs. The BIS TPM and the BIS UPM coordinate to promote overall project effectiveness and process efficiency.

A key component of the Project Management Methodology (PMM) is the fundamental principle of sharing risks with the contractor. The vendor selected to perform on this project must possess industry accepted and proven ERP development and implementation methodologies that meet the basic requirements identified in DOF's methodology. The project scope, schedule, and requirements will be clearly defined in the vendor contract, and the vendor will devote the necessary resources to accomplish the project goals and objectives. The vendor will be at risk if the project schedule slips, as they will then be subject to legal damages as specified in the terms of the contract.

The vendor will provide acceptable solutions to the system requirements as stated in the contract and detailed in the Scope of Work (SOW). The executed contracts will be based on deliverables, and payments will be subject to satisfactory completion of each project phase/deliverable, with the BIS TPM and BIS UPM approval and acceptance of required deliverables by the State.

6.2.1 BIS-ERP LIFE CYCLE

The BIS Team, with assistance from Departmental Subject Matter Experts (SME), at the designated times during implementation will plan, develop, test, train, and implement the ERP business processes within the parameters of the ERP Solution and the hardware and software required to support the ERP Solution. The project will follow CDC's PMM and will include a project charter and project management plan to guide the effort. The first step will consist of the development of the "to-be" business processes. The following steps of the project include: gap analysis, configuration, testing and implementation of the requisite hardware/software and training of CDC network staff on use of the chosen ERP Solution.

For planning purposes, a suggested life cycle is provided below. It is the intent of the Implementation Team to follow the recommendations of the chosen implementation vendor.

Initiation:

In this phase of the project CDC and vendor teams will prepare a Charter and various plans that will guide the remaining phases of the project. The BIS Project Team will be trained in the vendor's implementation methodology, and a high-level project plan will be completed. The technology infrastructure hardware/software requirements will be reviewed. This phase will serve to kick-off the project.

Requirements:

In this phase of the project, CDC and vendor teams will review the CDC "as-is" process flows developed during the FSR, re-engineer the processes and define "to-be" process flows within the context of the chosen ERP Solution, perform gap analysis, and identify interface and conversion requirements. The Business Function Teams will identify additional improvement opportunities. Plans will be refined based upon new information. The Communication, Change Management, and Leadership Plans will be initiated during this phase. The Change Management staff will work with the end-users to address the "gaps" in the "as-is" and "to-be" business processes.

Design:

During this phase of the project, CDC and vendor teams will continue to refine and map the business requirements to the vendor solution. Data conversion and interface requirements will be designed, as well as custom forms/reports. State technical SME's will be consulted to provide

expertise in the interface design. The teams will also begin to identify implementation roles and responsibilities. Change management activities shall continue throughout this phase.

Development:

During this phase, CDC and vendor teams will configure the software, and build conversion programs and interfaces. End-user training modules will be developed.

Testing:

During this phase, CDC and vendor teams will prepare for implementation. All user acceptance testing will be conducted, as well as the final testing of conversions and interfaces. The BIS Technical Team will be preparing the production environment and testing backup procedures, performance tuning, and system print capabilities.

Training:

The end-users will receive "just-in-time" training during this phase of the project. The CDC and vendor training teams will travel throughout the State to provide training to staff from several Institutions at the same time. The BIS Technical Team will complete preparation of the support environment for implementation.

Implementation:

This phase will enable CDC end-users to use the new processes. The CDC and vendor will be available to support end-users, troubleshoot problems, and finalize system documentation. The Business Functional Teams will begin to disassemble and return to their respective worksites.

Post Implementation:

This phase will provide support to end-users for one month after implementation to troubleshoot problems. A Post Implementation Evaluation Report (PIER) will be prepared 8-12 months after completion of the project.

6.2.2 BIS-BANDWIDTH REDESIGN LIFE CYCLE

The Information Systems Division (ISD) network staff will work with the BIS Team to develop the technical RFP and specifications to procure network design and installation services. These services will ensure CDC's WAN will accommodate transmission and data flow needs for the BIS Project. The CDC will utilize consulting services to evaluate and redesign the CDC WAN, identify recommended improvements, and implement the appropriate network improvements once procured by CDC. The project will follow CDC's PMM, and will include a project charter and project management plan. The first step will consist of the analysis and documentation of CDC's baseline network; a network requirements analysis and gap assessment and network redesign recommendations. The second step of the Bandwidth redesign includes the procurement, installation, configuration, testing and implementation of the recommended and approved hardware/software changes to CDC's WAN, and training of CDC network staff on use of the tools.

For planning purposes, a suggested life cycle is provided below. It is the intent of the BIS Implementation Team to follow the recommendations of the chosen implementation vendor.

Initiation:

In this phase of CDC's WAN redesign effort, CDC and vendor staff will prepare a Charter and various plans that will guide the redesign activity. The CDC Bandwidth UPL will be trained in the vendor's assessment and redesign methodology and a high-level project plan will be completed. This phase will initiate the redesign activity.

Requirements:

In this phase of CDC's WAN redesign effort, CDC and the network vendor assess CDCs' current network design and Bandwidth requirements for the Department and the BIS Project.

Design:

During this phase of the project, the network vendor will develop a list of recommendations to improve CDC's WAN. These improvements will include hardware, software, and services. The CDC will determine which recommendation(s) will be implemented to improve CDC's WAN to accommodate the ERP transmission and data flows. The CDC network staff will be trained by the vendor in network design concepts.

Installation:

During this phase, CDC network staff and the network vendor will procure, install, and configure the recommended network components. Development of the test plan and test cases will also be done at this time.

Testing:

During this phase, the network components will be tested and troubleshot. The CDC network management will be responsible for accepting the test results. Training materials for CDC staff will be prepared during this phase.

Training:

The CDC network staff will receive training by the vendor on the network components and services.

Post Installation:

This phase will provide support to network users for one month after implementation to troubleshoot problems.

6.2.3 BIS-TELECOMMUNICATIONS LIFE CYCLE

To leverage network cabling already installed at the Institutions, CDC's Telecommunications Branch will utilize an existing contract with a telecommunications firm to assess the existing fiber network between the buildings at the institution sites and troubleshoot any technical issues that may be discovered.

For planning purposes, a suggested life cycle is provided below. It is the intent of CDC to follow the recommendations of the chosen implementation vendor.

Initiation:

In this phase of the telecommunications effort CDC's Telecommunications Lead and vendor will prepare plans that will guide the remaining phases of the fiber network validation effort.

Requirements:

In this phase, CDC's Telecommunications Lead and the vendor will identify and document the current fiber network to buildings within the Institution sites that require access to the ERP Solution.

Design:

During this phase of the telecommunications effort, CDC's Telecommunications Lead and the vendor will assess the fiber network to determine network installation and integrity needs. In cases where connectivity is required to buildings on the institution sites that currently do not have fiber, the vendor will design the network components required to complete the connections in conjunction with BIS and ISD. A report of recommended network build-out or enhancements will be developed.

Development:

During this phase, CDC's Telecommunications Lead and vendor will install or change out the fiber network to the institution sites identified during the design phase. As-built drawings of CDC's network will be completed as the fiber network is installed. A telecommunications testing plan will be developed during this phase.

Testing:

During this phase, CDC's Telecommunications Lead and vendor will test the newly installed or modified network components. The CDC Telecommunications Branch will be responsible for accepting the vendor test case results.

Training:

Staff from ISD's Network Unit and FMD's Telecommunications Branch will provide an overview of the network enhancements implemented for the ERP Solution.

Implementation:

This phase will enable BIS staff to test end-user access to the ERP Solution. The CDC Telecommunications Lead and vendor will be available to support telecommunications staff, troubleshoot problems, and finalize system documentation.

Post Implementation:

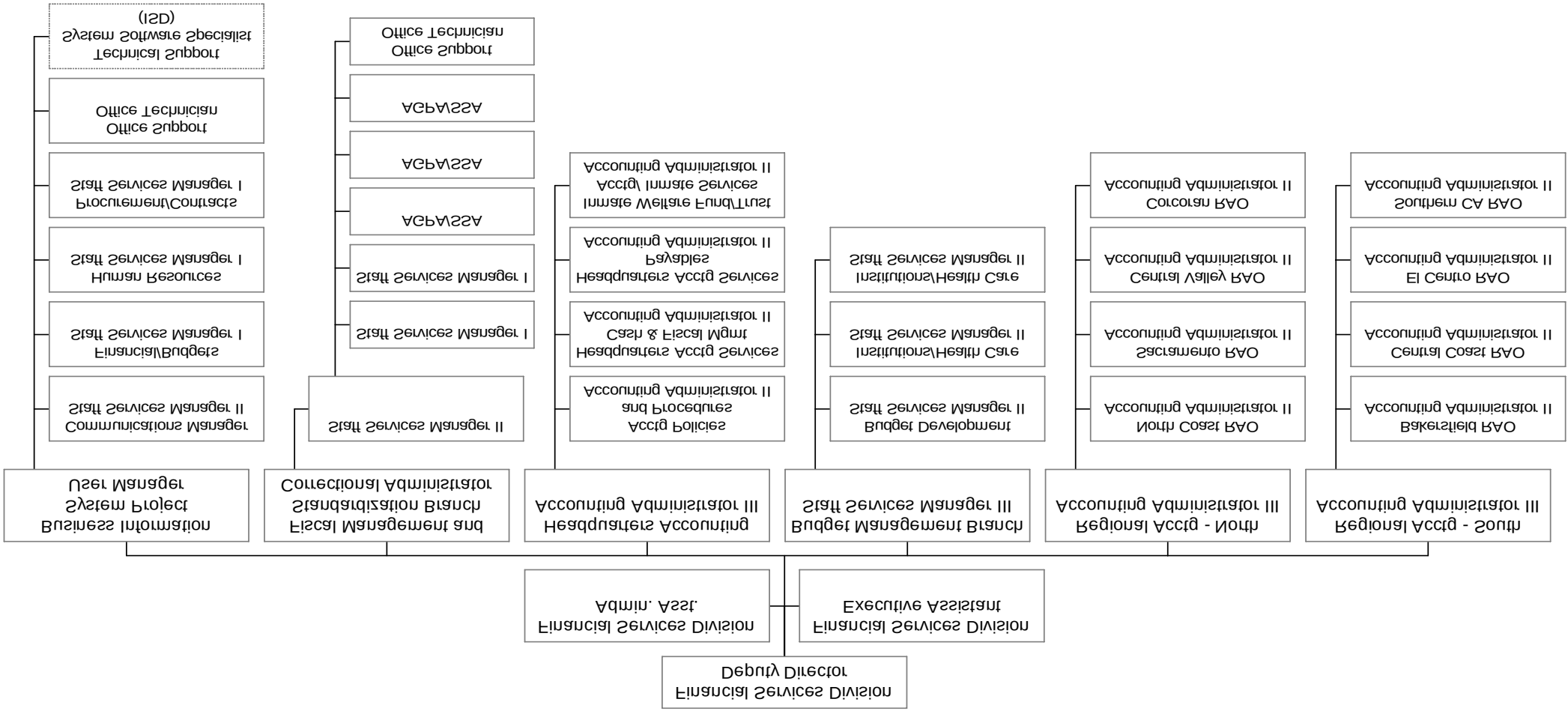
This phase will provide support to network staff for one month after implementation to troubleshoot problems.

6.3 PROJECT ORGANIZATION

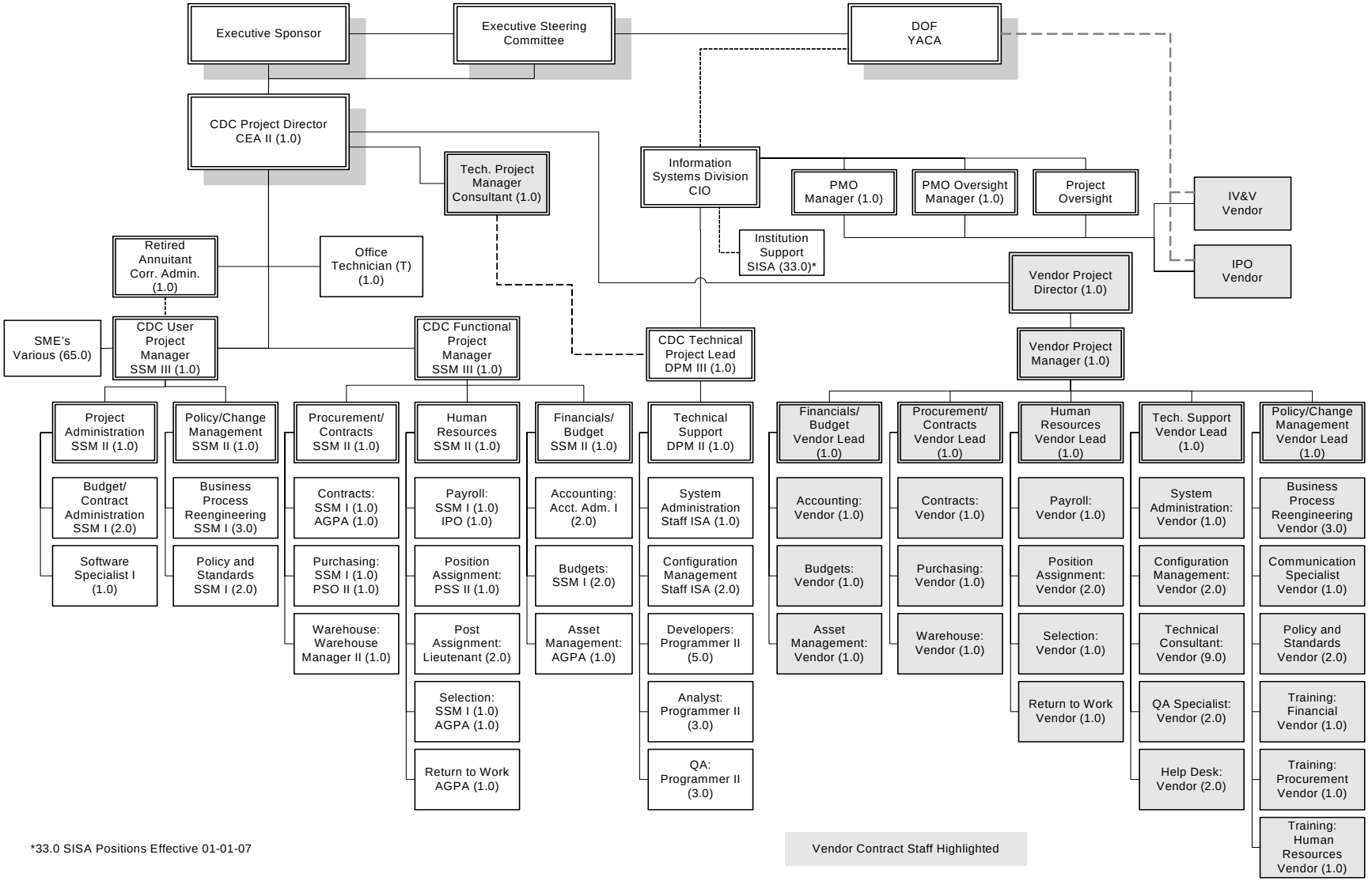
The following organizational charts represent the structure of CDC, Financial Services Division, BIS-ERP Implementation Team, BIS-Bandwidth Redesign, BIS Telecommunications Implementation, and On-going Support and Maintenance Teams.

6.3.1 CDC ORGANIZATION CHART

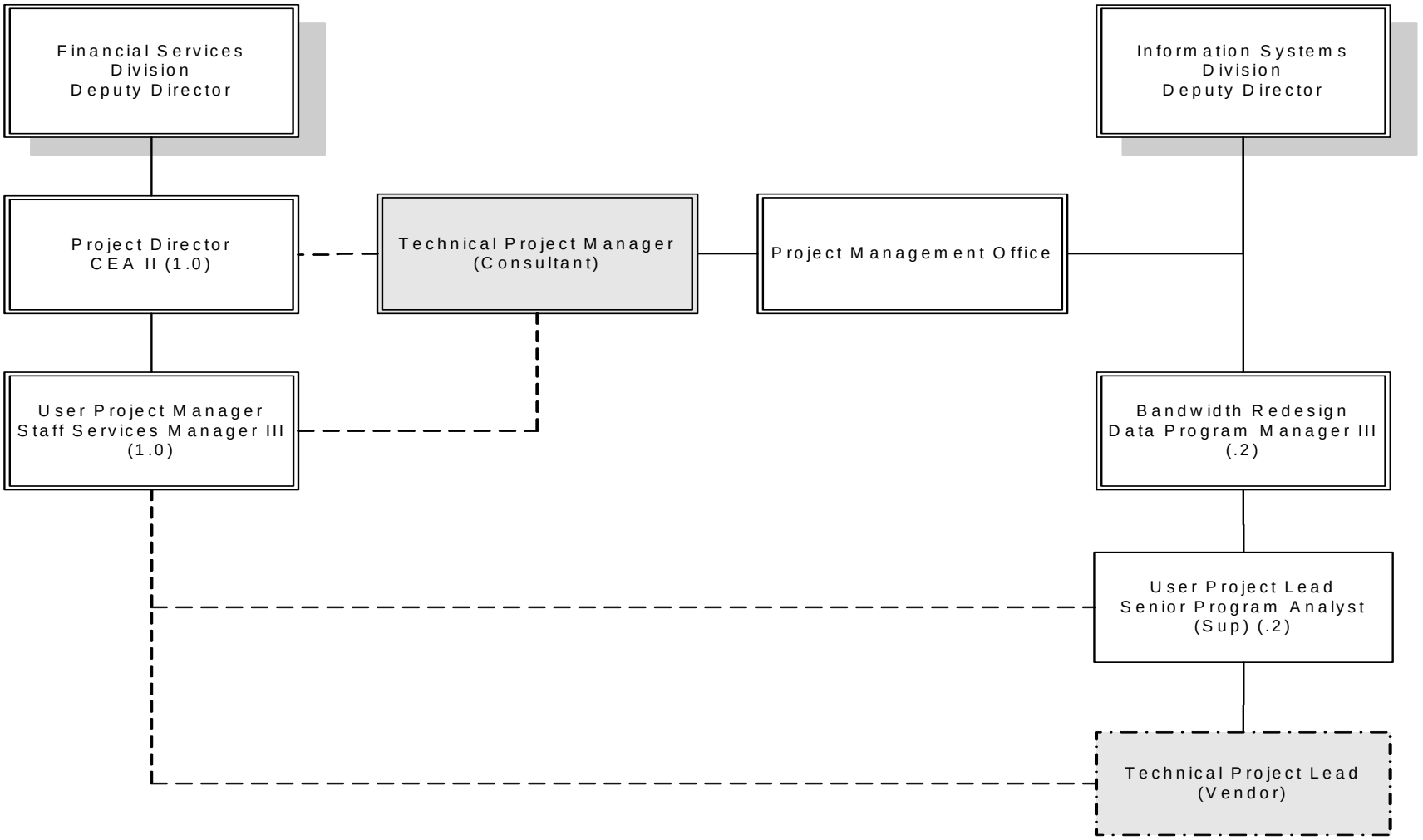
6.3.2 FSD ORGANIZATION CHART



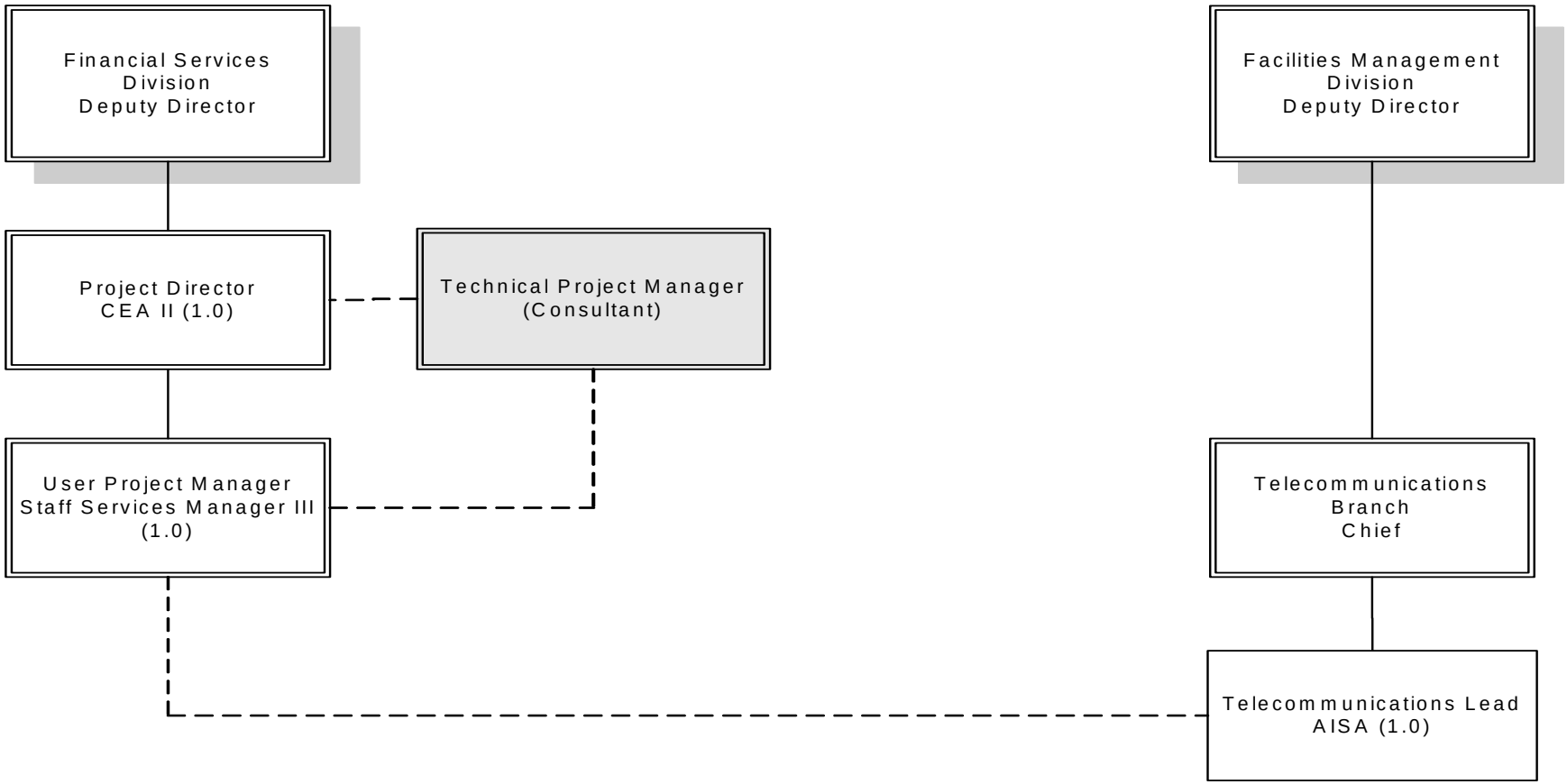
6.3.3 BIS-ERP IMPLEMENTATION ORGANIZATION CHART



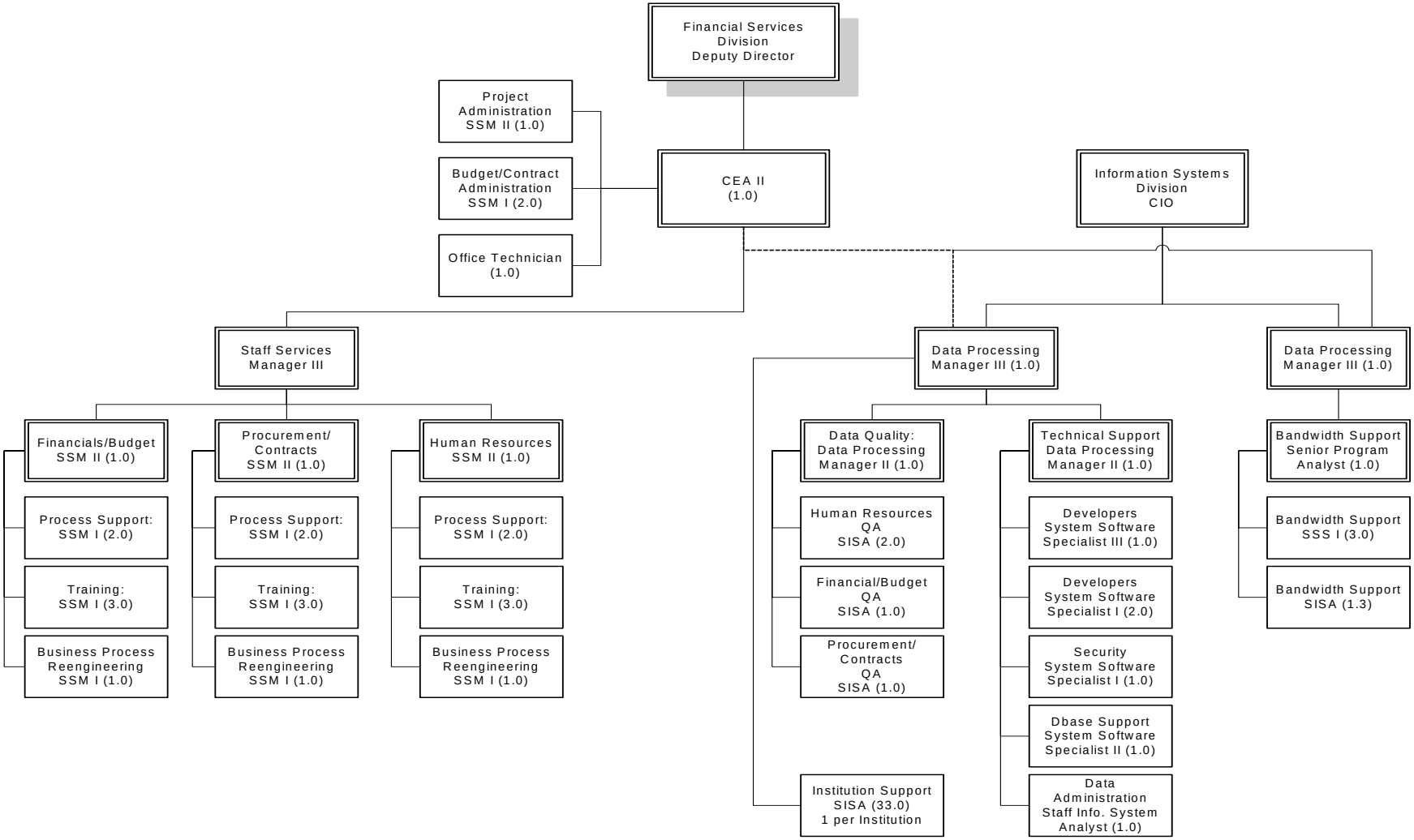
6.3.4 BIS-BANDWIDTH REDESIGN IMPLEMENTATION ORGANIZATION CHART



6.3.5 BIS-TELECOMMUNICATIONS IMPLEMENTATION ORGANIZATION CHART



6.3.6 BIS Ongoing Support and Maintenance Organization Chart



Help Desk functions provided by all staff in functional areas

6.4 PROJECT PRIORITIES

Managing a project requires the careful balancing of three primary factors: Resources, Scope and Schedule. These three factors are interrelated. A change in one of them causes the others to change as well. The importance of these factors are defined as *constrained* (cannot be changed); *accepted* (somewhat flexible to the project circumstance); or *improved* (can be adjusted). The following matrix prioritizes the relative importance of each factor for this project.

Resources	Scope	Schedule
Improved	Accepted	Constrained

6.5 PROJECT PLAN

This Project Plan will provide DOF and CDC's management with summary level information identifying the tasks, resources, technical and management requirements, responsibilities and constraints involved in the development and implementation of BIS. This project will be developed as a collaborative effort between the software vendor, implementation vendor, network redesign vendor, telecommunications vendor, and Departmental staff.

6.5.1 BIS Project Scope

The scope of the project is to procure a total solution and implement Financial/Budget, Human Resources, and Procurement/Contracts functions for CDC. In addition, the BIS Project will ensure that the network infrastructure is available and scalable to support the ERP Solution at the time of implementation and to meet future needs of the Department.

6.5.1.1 BIS-ERP Process Scope

The scope of the BIS-ERP Solution is to standardize, integrate, and automate all of the business processes and work flows required to perform the financial/budget, human resources, and procurement/contract activities of the Department. It is the intent of BIS to require staff throughout the entire Department to use the ERP processes. The processes listed below represent a subset of the Department's business process requirements within the scope of the BIS Project. This is a representative sampling of the business process flows:

Financial Management:

1. Accounting Reimbursement
2. Accounting-Programming Cost Accounting Structure
3. Accounting-State Operation Appropriation
4. Accounts Payable-Goods
5. Accounts Payable-Services
6. Accounts Receivable
7. Accounts Receivable (Payroll)
8. Ad Hoc Query (Affinity)
9. Allocations (Affinity)
10. Allotment Process
11. Audit Findings Resolution
12. BCP/Finance Letters
13. Budget Process (Planning, Preparing, Managing)
14. Monthly Budget Plan Process
15. Collections of Accounts Receivable
16. Estimate Base Cost of Salaries & Wages (Affinity)
17. Estimate Budget Changes (Affinity)
18. External Audit
19. Income Remittance
20. Inmate Population Projections
21. Internal Spot Audit
22. Maintain Five Year Plan
23. Monthly Payroll Download (Affinity)
24. Organization-Accounting Structure
25. Reconcile Budget Positions (Affinity)

Human Resources Management:

1. Adverse Actions
2. Annual Position Reconciliation
3. Attendance Certification
4. Attendance-Headquarters
5. Attendance-Institutions, Custody
6. Attendance-Institutions, Non-Custody
7. Benefits Administration
8. EEO Complaints-Administrative
9. EEO Complaints-External
10. EEO Complaints-Internal
11. EEO Complaints-Local
12. Employee Training
13. Hiring-Custody-Selections and Standards
14. Hiring-Headquarters
15. Hiring-Institutions
16. Hiring-Non-Custody

17. Labor Negotiations-Delegated
18. Labor Negotiations-Local
19. Labor Negotiations-Statewide
20. License Tracking
21. Merit Salary Adjustment
22. Out of Class
23. Payroll Interface
24. Performance Evaluation
25. Position Allocation
26. Position Control-Headquarters
27. Position Control-Institutions
28. Position Establishment and Change-Headquarters
29. Position Establishment and Change-Institutions
30. Post Assignment
31. Salary Advance-Headquarters
32. Salary Advance-Institutions
33. Testing-Centralized
34. Testing Delegated
35. Testing-Selections and Standards
36. Unfair Labor Practice
37. Wage Garnishment
38. Workers' Compensation-Claims Management
39. Workers' Compensation-Claims Management-Centralized Settlement Pilot Project
40. Workers' Compensation-Claim Process
41. Workers' Compensation-Intake Reporting
42. Workers' Compensation-Payroll
43. Workers' Compensation-Reasonable Accommodation
44. Workers' Compensation-Reporting
45. Watch Office Tracking

Procurement/Contract Management:

1. Conduct Physical inventory-Headquarters
2. Conduct Physical Inventory-Institution
3. Contract-Competitive Bid Process
4. Contract-Contract Request (New & Renewal)
5. Contract-Direct Pay Process
6. Contract-Help Desk Procedure
7. Contract-New Prison Public Works Contract Process
8. Contract-Non-Bid Contract Process
9. Contract-Request for Qualification Process
10. Contract-Service and Expense Order Process
11. Hazardous Material Tracking Process
12. Inventory Management

13. Issue Goods
14. Modular Trailer Lease
15. Property Assignment
16. Property Inventory-Headquarters
17. Property Inventory-Institution
18. Property Receipt-Headquarters
19. Property Receipt-Institution
20. Property Survey-Headquarters
21. Property Survey-Institution
22. Property Survey-Vehicles
23. Property Transfer-Headquarters
24. Property Transfer-Institution
25. Property Transfer-Between Institutions
26. Purchasing Goods-Camps
27. Purchasing Goods-Headquarters
28. Purchasing Goods-Institution
29. Purchasing Vehicles
30. Real Estate Lease-By State
31. Real Estate Lease-Headquarters
32. Real Estate Lease-Institution
33. Stock Received-Headquarters
34. Stock Received Institution
35. Stock Returns
36. Tracking Goods

The scope of this project focuses on implementing business support processes listed above, and does not include the tracking or automation of offender based information such as:

- Inmate Classification;
- The development, piloting, evaluation, and compliance of mandated health care programs and inmate programs;
- Systems that track inmate and parolee activities (for example, RSTS - Revocations Tracking System, and Parole LEADS - Law Enforcement Application Data System).

Community Correctional Facilities and Conservation Camps are not within the scope of this project.

6.5.1.2 BIS-Bandwidth Redesign Scope:

In order to utilize BIS effectively and efficiently modifications to the underlying technology infrastructure need to be made. The

scope of the modifications to the underlying infrastructure include:

1. Evaluation and analysis of the current CDC WAN and CDC interface with TDC to establish a "baseline" network architecture;

2. The redesign of the CDC network to provide redundancy to the facility level and bandwidth upgrades to meet expected network capacity requirements for the ERP system;

3. Implementation of the new design including installation, configuration and testing of hardware/software and new and/or upgraded data circuits;

4. Specification, procurement, installation, configuration, testing and training of CDC network staff on network analysis/management tools that will enable proactive management of CDC's network.

6.5.1.3 BIS-Telecommunication Scope:

The communications network intended to be utilized by the Institutions to access the ERP Solution was installed during the early 1990's as a result of the Correctional Management Information System (CMIS) Project. The integrity of this communications infrastructure needs to be validated, and if required, modified to ensure that all end-users will have access to the ERP Solution upon activation of the system. This will require staff knowledgeable in telecommunications and LAN design/implementation to review the connectivity issues within all end-user areas. Specifically, the scope of the telecommunications activities will focus on the following areas:

1. Verify the fiber optic communications network between the buildings at the institution sites is in place and functional for access to the ERP Solution;
2. Ensure all identified end-users of the ERP Solution have fiber optic connectivity, and;

3. Install fiber optic runs to any identified end-user gaps within the Institutions.

6.5.2 Project Assumptions

The CDC will procure a total solution, but implement the Financial/Budget, Human Resources, and Procurement/Contracts modules first. The major assumptions are identified below for each component of the project:

BIS-ERP Software Solution:

a. Full funding to procure a total solution will be provided.
b. CDC has project team resources in place and ready to go when the implementation vendor starts.
c. CDC has project team facilities in place and ready to go when the implementation vendor starts.
d. Departmental SMEs and External Control Agency IT staff will be brought in to the project on an "as-needed" basis.
e. TDC support services are captured as a support cost, and it is not anticipated that they will supply staffing resources directly on the project team.
f. BIS Team Members will be comprised of representation from each of the CDC programs (HCSD, ID, P&CSD, ASD, FMD and ISD).
g. There are no electrical power source deficiencies to implement the ERP Solution.
h. CDC staff will be used for testing print capabilities and to install any required software on client PCs.
i. TDC will provide data center services.
j. The ERP Solution estimates are based upon a centralized database with a three-tier architecture.
k. The ERP Solution will be implemented on a TDC supported platform.
l. Application and database servers will be determined based on ERP requirements.
m. Client PCs will meet CDC hardware and software standards.
n. Network interface cards in all BIS client workstations will be required to support 100 Mbps transfer speed.
o. TCP/IP will be the underlying network protocol.
p. CDC's ISD preliminary technical estimate is that approximately 130 network devices to support the migration from "dummy" terminal/mainframe to client server and web-based technology will need to be replaced.
q. The BIS Team assumes three regional training centers to provide end-user training of the ERP Solution.

r. Training centers will be located based on "best value" to the State by the Implementation vendor.
s. System Implementers and BIS Teams will provide joint training at the Regional training centers.

BIS-Bandwidth Redesign:

a. All Institutions are connected to the CDC WAN.
b. The communication infrastructure will be in place by the end of the BIS implementation design.
c. Network and data communication services will be provided by SBC.
d. One T1 line will be installed from the TDC to CDC's ISD.
e. The redesigned network recommendations will leverage off existing CDC network standards and software.

BIS-Telecommunications:

a. CMIS infrastructure will be utilized in the Institutions.
b. Network connectivity needs within each Institution will be confirmed by the telecommunication design engineer. Approximately 1.38 buildings per Institution require connectivity to the network.

6.5.3 BIS Project Timeline

Year 2004-2007	July 2004	August	September	October	November	December	Jan. 2005	February	March	April	May	June	July 2005	August	September	October	November	December	Jan. 2006	February	March	April	May	June	July 2006	August	September	October	November	December	Jan. 2007	February	March	April	May	June	July 2007	August	September	October	November
Business Information System (BIS) Software Implementation																																									
Procurement:																																									
Statement of Work																																									
Request for Qualification																																									
Request for Proposal																																									
Confidential Discussions																																									
Vendor Demonstrations																																									
Evaluations																																									
Obtain TIRU/DOF Approval																																									
Award																																									
Implementation:	**Human Resources, Finance/Budget, Procurement/Contract**																																									
Initiation:																																									
Requirements:																																									
Design:																																									
Development:																																									
Testing:																																									
Training:																																									
Implementation:																																									
Post Implementation Support:																																									
Change Management:																																									
On-going Maintenance and Support																																									

Footnotes: Post Implementation Evaluation Review (PIER) for BIS will be completed 8-12 months after post implementation.
On-going maintenance and support continues after post implementation.

BIS Technology Timeline

Year 2004-2007	May	June	July 2004	August	September	October	November	December	Jan. 2005	February	March	April	May	June	July 2005	August	September	October	November	December	Jan. 2006	February	March	April	May	June	July 2006	August	September	October	November	December	Jan. 2007	February	March	April	May	June	July 2007	August	September
Telecommunications																																								
Planning:																																								
Engineering/Design:																																								
Installation:																																								
Troubleshoot/Repair:																																								
Local Area Network																																								
Planning:																																								
Engineering/Design:																																								
Procurement:																																								
Installation:																																								
Training:																																								
Troubleshoot/Repair:																																								
Bandwidth																																								
Procurement of Architect Contract:																																								
Develop Physical Network Design:																																								
Procurement of Installation Vendor:																																								
Procure Network Hardware/Software:																																								
Training (Theory):																																								
Installation/Troubleshoot/Repair:																																								
Training (Hands On):																																								

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6.5.4 Project Phasing

It is CDC's intent to minimize overall project risk by requiring specific deliverables — each of which have stand-alone value and could be carried forward by other parties. These deliverables are as follows:

6.5.4.1 BIS-ERP: Project Phasing

Phase	Deliverables
Initiation	Project Management Plan Development Plan Security Strategy Test Plan Training Plan Communications Plan Change Readiness Assessment
Requirements	Requirements Specification Gap Analysis Report Change Management Plan
Design	System Design Specification Quantified Business Benefits Conversion and Interface Specifications End-User Training Plan Test Plan
Development	Operational Metrics for Business Benefits Configured Application Converted Data Integration and System Test Results
Testing	User Acceptance Test Results Working Software
Training	Trained End-Users Documentation
Implementation	Production ERP Software Production Report Writing Software
Post Implementation Support	Warranty PIER Report

6.5.4.2 BIS-Bandwidth Redesign:

Phase	Deliverables
Initiation	Project Management Plan Development Plan Security Strategy Test Plan Training Plan Communications Plan Change Readiness Assessment Procure Qualified Consulting Services
Requirements	Requirements Specification Gap Analysis Report Change Management Plan
Design	System Design Specification Network User Training Plan Test Plan Baseline Utilization and Performance Metrics Finalized Physical Network Design Finalized Required Equipment Configuration
Development	Procure Requisite Equipment and Software
Testing	Network User Acceptance Test Results Working Software
Training	Trained Network Users Documentation
Implementation	Production Software Network Upgrades
Post Implementation Support	Assess Network Utilization and Performance

6.5.4.3 BIS-Telecommunications:

Phase	Deliverables
Initiation	Project Management Plan Development Plan Security Strategy Test Plan Training Plan Communications Plan Change Readiness Assessment
Requirements	Requirements Specification Gap Analysis Report Change Management Plan
Design	System Design Specification Conversion and Interface Specifications Telecommunications Staff Training Plan Test Plan
Development	Integration and System Test Results
Testing	Telecommunications Staff Acceptance Test Results Working Connectivity
Training	Trained Telecommunications Staff Documentation
Implementation	Tested Working Connectivity
Post Implementation Support	Warranty

6.5.5 Roles and Responsibilities

Key project roles and responsibilities are shown below:

BIS Executive Steering Committee: (CDC)

In accordance with the BIS Charter, the BIS ESC is comprised of CDC executive level staff. The committee champions the BIS effort and change needs throughout the organization. They publicly support the project by communicating the vision in understandable terms; demonstrate the project vision; ensure project goals and activities are effectively integrated and appropriately aligned with all CDC initiatives; approve project scope and budget; ensure adequate resources; provide strategic direction; ensure

appropriate business leaders are involved; provide timely decisions on policy and scope issues; resolve issues; work to reduce barriers and mitigate risks; communicate progress; and monitor cascading leadership and effectiveness of the communications plan.

BIS Executive Project Sponsor: (CDC)

The BIS EPS ensures the project team gets the resources it needs and works with the BIS Project Director to resolve significant vendor dispute issues. The BIS EPS gains support and active participation for the project from internal and external stakeholders. The BIS EPS is a member of the BIS ESC, and plays an active role in facilitating decision-making and issue resolution. The BIS EPS champions the BIS ERP effort and change needs across the organization. The BIS EPS publicly supports the project by communicating the vision in understandable terms, and ensures top management support. He/she provides the authority for the project team, and leadership and guidance on unresolved issues. The BIS EPS may facilitate meetings concerning stakeholder issues.

BIS Project Director (CDC):

The BIS PD reports directly to the BIS EPS, and is responsible for the implementation of the BIS project. The BIS PD will lead, guide, and direct the activities of the project, and works with internal and external stakeholders, control agencies, and contractors to mitigate project risks. The BIS PD negotiates changes in scope, timeframes and resources with the BIS EPS and BIS ESC, and keeps current on issues that may impact the progress of the project. The BIS PD chairs the BIS ESC meetings.

BIS-ERP Vendor Project Director (Vendor):

The ERP VPD reports directly to the BIS Project Director, and is responsible for the overall delivery of the solution according to the contract. The ERP VPD is the primary vendor responsible for coordinating multiple vendor sub-contracts, and the overall activities of all contractors working on the implementation of the ERP solution. The ERP VPD works with CDC's BIS PD to mitigate project risks. The BIS VPD negotiates changes in scope, timeframes and contract resources with the BIS EPS and BIS ESC, and keeps current on issues that may impact the progress of the project. The ERP VPD attends the BIS ESC meetings.

BIS User Project Manager (CDC):

The BIS UPM reports directly to the BIS Project Director and is responsible for managing the day-to-day administrative and support activities of the project. The BIS UPM is responsible for managing all vendor contracts and project schedules, ensuring CDC project milestones are met and deliverables are completed to CDC's satisfaction, project budgeted to actual expenditures are tracked, and all project reporting is completed on-time and according to the reporting requirements. The BIS UPM shall be responsible for coordinating the selection, recruiting, and training needs of CDC staff resources in a timely fashion to meet the needs of the project. The BIS UPM will manage the SME activities of the project. The BIS UPM will identify and work to mitigate project risks, including the development of any contingency plans required by the BIS ESC. The BIS UPM will direct the Project Administrator (PA) in the managing of all vendor contracts, and will ensure project milestones are met and deliverables are completed to CDC's satisfaction. The BIS UPM will report to the BIS PD and attend the BIS ESC meetings.

BIS Technical Project Manager (Consultant):

The BIS TPM reports to the BIS Project Director. As the technical liaison to the BIS Project Director, the TPM ensures the project produces the required deliverables, to the required standard of quality and within the specified constraints of time and cost. The BIS TPM oversees the creation and delivery of project deliverables with project staff and ensures the deliverables are capable of achieving the benefits stipulated in the agreed upon FSR. Working with the BIS UPM, FPM, Bandwidth UPL, the Telecommunications Lead, the BIS TPM oversees production of the Project Plan and works with the BIS ESC to obtain approval; plans and monitors the project and is accountable to the BIS PD for overall progress; advises on the use of resources, and initiates corrective action where necessary. The BIS TPM will identify and work to mitigate project risks, including the development of any contingency plans required by the BIS ESC. The BIS TPM obtains agreement on the technical strategy from the BIS ESC, and prepares the PIER.

The BIS TPM will report directly to the BIS PD and indirectly to ISD PMO. The BIS TPM will attend the BIS ESC meetings.

BIS-ERP Vendor Project Manager (Vendor):

The ERP VPM reports to the ERP VPD. The ERP VPM oversees the day-to-day activities of the vendor resources on the project and ensures a consistent approach to a standard methodology by the teams, ensures adequate consideration is given to integration points, ensures the successful integration of business processes throughout the teams, and

coordinates the daily activities for the development of an implementation release strategy. The ERP VPM coordinates and guides the development of a comprehensive work plan. The ERP VPM will attend the ESC meetings.

BIS-Bandwidth User Project Lead (CDC):

The Bandwidth UPL reports to ISD with project direction from the BIS TPM through the BIS UPM. The incumbent communicates program strategies, benefits, direction, status and recommendations as appropriate. The Bandwidth UPL is responsible for ensuring adherence to the schedule, communicating and providing project updates in accomplishments and timelines to the BIS TPM, recommending alternatives and/or solutions to identified problems, maintaining a record of expenditures and providing input for budgetary reports.

BIS-Bandwidth Technical Project Lead (Vendor):

The Bandwidth Technical Project Lead (TPL) reports directly to the ISD PMO with project direction from the BIS TPM through the BIS UPM and is responsible for overseeing the completion of the Bandwidth redesign activities. The Bandwidth TPL will be responsible for ensuring that current and future networking needs of the ERP solution and the Department will be addressed in a redesigned network architecture. The Bandwidth TPL will forward recommendations for improvement and ensure the completion of a redesigned network. The Bandwidth TPL will be responsible for identifying any risks to the BIS Project caused by infrastructure or telecommunication issues discovered during the analysis and redesign. The Bandwidth TPL will ensure that the IT structure developed is sufficient to support the implementation of Departmental IT initiatives and identify gaps, which may become fatal flaws to the Department.

BIS-Telecommunications Lead (CDC):

The Telecommunications Lead (TL) reports to FMD with project direction from the BIS TPM through the BIS UPM. The TL is responsible for overseeing the validation, and if appropriate, build-out of the fiber optic network between the Institution buildings that require access to the ERP Solution. The TL is responsible for identifying any risks to the BIS Project caused by gaps in the Institution LAN infrastructure discovered during the analysis of the Design and Engineering. The TL will ensure that the LAN infrastructure developed is sufficient to support the implementation of the ERP Solution and identify gaps, which may become

fatal flaws to the Department.

BIS Project Administrator and Budget/Contract Administrator (CDC):

These incumbents shall assist the BIS UPM in the coordination of BIS Project implementation and contract management. They manage scope changes, project task updates, administrative contracts, track budgeted to actual expenditures, coordinate meetings and presentations, and track issues. Additionally, they maintain schedule and contract information.

BIS Independent Project Oversight Consultant (Consultant):

The Independent Project Oversight Consultant (IPOC) shall perform repetitive independent assessments of the project management and operations, provide written and verbal reports of the assessment findings to YACA and DOF, provide recommendations for remediation of risks for the purpose of ensuring adherence to sound project management practices and successful delivery of the system. The IPOC shall provide independent oversight of the project in order to ensure timely project completion, effective management of project scope and budget, CDC performance, TDC performance and COTS vendor performance. This independent oversight will identify and quantify project risks and issues. The IPOC will develop and present sound recommendations based on industry best practices to reduce or eliminate the risks and issues, and evaluate and report on adherence to project scope (functionality required by the sponsoring business entity), time, cost, and quality baselines. The IPOC will assess and report on effective project Integration Management, Financial/Budgets Management, Human Resource Management, Communication Management, and Procurement/Contract Management, and provide recommendations for correction of faults found. The IPOC shall provide objective and timely assessment of project management products and processes, report on issues found, and make recommendations for correction. Additionally, the IPOC will ensure adherence to project management standards, practices and conventions and make recommendations for changes to standards, practices and conventions as needed.

BIS Independent Verification & Validation (Consultant):

The Independent Verification & Validation (IV&V) Consultant shall perform repetitive independent assessments of project technical products and deliverables, provide written and verbal reports of the assessment findings to YACA and Finance, and provide recommendations to ensure

that the project products and deliverables conform to requirements and satisfy intended use and needs. The IV&V Consultant shall provide objective and timely assessment of project products and processes, report on findings, and recommendations for corrections, identify process and product risk, report on findings, and recommend solutions based on industry best practices. The IV&V Consultant shall evaluate and report on compliance with performance, schedule, budget, and quality requirements, ensure compliance with requirements for project activities during processes, ensure adherence to standards, practices and conventions during processes and make recommendations for changes as needed. Additionally, the IV&V Consultant will provide validation services to determine if the project products and deliverables satisfy requirements and solve the right problems.

BIS-ERP Team Leaders: (CDC)

The BIS Team Leaders direct the activities of BIS Project Teams who have respective responsibility for Financial/Budget, Human Resources, Procurement/Contracts, Policy/Change Management (P/CM) or Technical Support (TS). The BIS Team Leaders are responsible for leading BIS Project Team Members on a daily basis in developing comprehensive work plans, coordinating work products/deliverables, and ensuring their timely completion. The BIS Team Leaders will work with the P/CM Team, BIS UPM, FTM, and BIS TPM to coordinate effective end-user communications and training relative to their areas of responsibility. They convey needed information between the BIS Project Managers and Team Members, and assign tasks.

BIS-ERP Functional Support Teams: (CDC)

The Functional Support Teams (FST's), with assistance from CDC SMEs representing various functional areas i.e., Finance/Budget, Human Resources and Procurement/Contract, will reengineer the "as-is" business processes to the best practices in the chosen ERP Solution. The teams will be responsible for ensuring the State and CDC business rules are accurately configured in the ERP Solution. The FST's will be involved in training the end-users and providing help desk functions after implementation.

BIS-ERP Technical Support Team: (CDC)

The TS Team provides data center support for the production, development, testing and training environments. The TS Team will provide and maintain working hardware, and the technical infrastructure to ensure successful completion of the project.

The TS Team oversees the implementation of software changes, legacy interfaces and software development; and they support data analysis, cleansing and conversion, documentation, and custom report development. They oversee the testing function including coordinating, planning, managing and testing software and processes and ensuring the security of data.

BIS-ERP Policy/Change Management Team: (CDC)

The P/CM Team performs the role of Change Agent by working with the BIS ESC, BIS EPS and stakeholders to ensure communication flow between end-users, stakeholders and the project. They design and facilitate the Communications Plan. They work with CDC Executive Staff to develop and implement an organizational change program that influences the cultural change toward quality customer service, continuous improvement and learning. They define customer service standards and expectations for reengineering and design initiatives. The P/CM Team will monitor the effectiveness of the business process reengineering, and recommend adjustments based on opportunities for improvement. They assess, coordinate, and provide end-user training.

The P/CM Team facilitates proactive development, application and consistency of policy and standards. They ensure policy issues are resolved through effective communication, negotiations, training and removal of roadblocks. They monitor the effectiveness of policy impact and make recommendations for improvements. They provide input to the risk mitigation plan and contingencies in relation to policy impact and end-user support.

BIS Ongoing Maintenance and Support Organization: (CDC)

The main objective of this organization is to serve CDC's program units with the ongoing use and improvement of business processes that are affected by the ERP. This Organization will address necessary revisions to existing business rules and will identify and develop new business rules. They ensure data quality and security.

Functional Teams:

These Teams are the first level of help support and directly work with the end-users throughout the Department. They are very knowledgeable about the ERP system within the context of their respective functional area. They are knowledgeable about how CDC chose to implement its

business processes in the ERP, work directly with end-users to articulate changes to the business rules, and identify new training or report requirements. They provide training on changes to the business processes, and manage communications throughout the organization to ensure business units and end-users are aware of the process changes that impact their day-to-day transactions. This Team possesses training and has a high skill set in business process improvement to facilitate changes in CDC's newly implemented and standardized business processes.

Technical Team:

This Team supports the ongoing maintenance of the development, test, and training environments. They will work with TDC and the ERP solution provider to install patches/upgrades to the ERP software. They provide development support in terms of modifications to or development of custom reports. They are also directly responsible for the security of the data, databases, and the overall system.

Data Quality Team:

This Team performs analysis and continually tests the data collected and stored in the ERP databases. They review and reconcile ERP data to the data contained in external systems such as CalSTARS.

6.5.6 Project Management Schedule

Within each portion of the project there are a number of key milestones and project tasks.

6.5.6.1 BIS-ERP: Project Management Schedule

Milestone	Task
Initiation Complete	Develop Project Management Plan Develop Technical Plans (development plan, security strategy, test plan) Develop Training Plan Develop Communication Plan Develop Change Readiness Assessment
Requirements Complete	Identify Requirements Identify Gaps Revise Change Management Plan
Design Complete	Develop Design Specifications Identify and Quantify Business Benefits Develop Conversion and Interface Specifications Develop End-User Training Plan Develop Test Plan
Development Complete	Develop Operational Metrics for Business Benefits Configure Software Application Perform Data Conversion Perform Unit and Integration Test
Testing Complete	Perform User Acceptance Test Resolve Software Defects
Training Complete	Perform End User Training Prepare Documentation
Implementation Complete	Migrate Software to Production
Post Implementation Support	Resolve Production Issues and Defects Develop PIER Report

6.5.6.2 BIS-Bandwidth Redesign

Milestone	Task
Initiation Complete	Develop Project Charter Develop Project Management Plan Develop Procurement Plan Develop Communication Plan
Procurement Complete	Prepare RFP for Consultant Services Manage RFP process Award Contract
Requirements Complete	Assess and document Current CDC Network Identify BIS Network Requirements Define Gaps
Design Complete	Develop Design Specifications Develop Hardware/Software/Data Circuit Specifications Document Design Assumptions Develop Test Plan and Cases Develop Redesign Document
Installation Planning Complete	Refine Project Charter Refine the Project Management Plan Develop Procurement Plan Develop Communication Plan
Procurement for Services Complete	Prepare RFP for Consultant Services for Implementation Manage RFP Process Award Contract
Procurement for Network Upgrades Complete	Development Hardware/Software and Data Circuit Procurement Documents Manage the Procurement Process Receive and Bench Test Hardware
Installation Complete	Install Hardware and Software Install Data Circuits Configure Hardware and Software Install and Configure Network Management Tools
Testing Complete	Finalize Test Cases and Test Plan Execute Test Cases Document Results Certify and Accept Test Results
Training Complete	Finalize Training Plan Attend Training Classes
Implementation Complete	Migrate New Network Configurations to Production Implement Network Management Tools Finalize network Documentation and Turnover to CDC Staff
Post Implementation Support	Resolve Production Issues and Defects

6.5.6.3 BIS-Telecommunications

Milestone	Task
Initiation Complete	Develop Project Management Plan Develop Technical Plans (development plan, security strategy, test plan) Develop Training Plan Develop Communication Plan Develop Change Readiness Assessment
Requirements Complete	Assess and Document Current CDC Network Identify BIS Network Requirements Define Gaps Revise Change Management Plan
Design Complete	Develop Design Specifications Develop Test Plan
Development Complete	Configure Telecommunications Components Install Telecommunications Components Test Fiber Optic Network
Testing Complete	Perform User Acceptance Test Resolve wiring defects
Training Complete	Perform End User Training Prepare Documentation
Implementation Complete	Migrate to Production
Post Implementation Support	Resolve Connectivity Issues and Defects

6.6 PROJECT MONITORING

The BIS UPM and BIS TPM will prepare monthly project status reports addressing project plan status, issues, action items, major milestones and phase reviews. The BIS UPM and BIS TPM will also prepare a monthly Project Management Review (PMR) report that will be reviewed in detail by ISD's Chief Information Officer and a copy of the PMR report will be sent to the appropriate State Information Technology control agencies as directed. In addition, an independent project oversight staff will be assigned from ISD's PMO Office. This individual will independently review the project status, project reports, and will validate the accuracy of the material being reported and the project status.

Tracking of the project will be aided through the use of a project management tool. The project team will develop a detailed work plan using IEEE and PMI guidelines, which incorporates the Department's prior experiences with projects of similar size and complexity. This tool will document and track project milestones, activities and resources assigned to each task. By combining staff expertise with an effective project manager, CDC can monitor the project while ensuring effective knowledge transfer relating to the system. The project will

stay within budget guidelines by tracking invoices from the contractor and other project costs on a timely basis.

The BIS UPM will prepare monthly project status reports, monthly oversight agency reports, and any special reports addressing project plan status, issues, action items, major milestones, and phase reviews. A third-party contractor will perform a verification and validation oversight function and report to the BIS EPS. Additionally, the DGS will assist CDC by running a fair procurement in order to provide a "best value" solution for CDC's network and business processes.

6.7 PROJECT QUALITY

The basic approach used in assuring overall project quality emphasizes that the project's results will meet its business and technical objectives. This is done through the development of well-defined requirements, which in turn, are tracked throughout the project through the use of a "Traceability Matrix." This matrix is a key tool for ensuring consistent compliance with the requirements. This tool also documents approved changes in scope or requirements.

Throughout the project, communications are facilitated through the use of project management reporting, informal progress reporting, and issue resolution procedures. In addition, at the end of the design phase and during acceptance testing, high levels of user participation are required. This is necessary in order to ensure that users are truly getting what they need and expect.

6.8 CHANGE MANAGEMENT

The Change Management procedures will feature a three-step approach designed to accommodate reasonable variations from the original work plan.

These steps are:

1. Submission of Change Request - Changes in this project will require the submission of a Change Request that documents the nature of the change, the reason for the change, the impact on the project budget, schedule, and resources as well as the impact if the change is not accomplished.
2. Review and discussion by project managers - The project managers review the Change Request and discuss the various impacts of accomplishing or not accomplishing the change. The change is evaluated based on its cost and benefit, as well as its relevance to the original objectives of the project.
3. Approval or Denial - To be implemented, the request must be approved by the project managers, BIS PD and BIS EPS. Without unanimous consent, the request will be denied. The requirement matrix is updated accordingly.

6.9 AUTHORIZATION REQUIRED

The following individuals and departments must approve the proposed project:

- Executive Project Sponsor
- Director, California Department of Corrections
- Secretary, Youth and Adult Correctional Agency
- Department of Finance (Technology Investment Review Unit (TIRU) and Technology Oversight and Security Unit (TOSU)
- Department of General Services

7.0 RISK MANAGEMENT PLAN

7.1 RISK MANAGEMENT APPROACH

The Risk Management Plan is the project's initial reference resource concerning risk management, risk avoidance, risk mitigation, and risk reporting required throughout the project's life cycle. In an effort to recognize, analyze, and respond to project risks, the Risk Management methodology will be:

- Identify project risks;
- Analyze identified risks;
- Quantify the risk's impact on the project;
- Quantify the likelihood the risk will occur;
- Prioritize identified risks;
- Develop preventative measures (where applicable);
- Develop mitigation strategies to limit the risk's impact on the project;
- Assign a team member to track, review, and report on specific risks;
- Allocate resources to mitigate effects of risk events, and;
- Develop a risk closure process.

7.2 COMPLETED DOF RAM REPORT

See Appendix E - Risk Assessment Summary Report

7.3 RISK MANAGEMENT WORKSHEET

The CDC recognized many of the obvious risk factors early in the process of evaluating the potential use of COTS software as an ERP Solution. The need for a full-time core evaluation team, buy-in from the stakeholders, executive

commitment, and adequate resources were identified as some of the significant risk factors at the beginning of the project. To address these factors:

- CDC has maintained open communications and involvement of key personnel in identifying the Department's critical business requirements.

- The Department's Director and the Deputy Director, FSD, have conveyed their commitment through verbal and written communications to CDC employees.

- The Department established a full-time core cross-functional team, and co-located the team in a single physical location, thereby maximizing interaction between the team members.

The following chart identifies some preliminary risks during the requirements phase of the project. As the project continues, these and other risks will be entered and maintained on a database for ease of tracking, updating and reporting.

	Risks/Potential Threats to Success	Loss Hours	Probability	Risk Hours	Preventative Measures	Contingency Measures	Areas Affected
	UNION ISSUES						
1	Unions do not support redirections or changes in custodial duties in support of reengineered business processes.	800	0.9	720	Stakeholder participation; Stakeholder communication; Early negotiation.	Manage changes through attrition. Legislature to mandate changes to redirect workload.	Budget Schedule
2	Unions do not support redirections or changes in non-custodial duties in support of reengineered business processes.	800	0.9	720	Stakeholder participation; Stakeholder communication.	Manage changes through attrition.	Budget Schedule
3	Unions may not support automation of workflow processes involving confidential data.	400	0.9	360	Stakeholder participation; Information Security Officer participation; Stakeholder communication		Budget Schedule
4	Unions require meet and confer regarding potential savings in personnel.	800	0.9	720	Stakeholder participation; Schedule in project.	Manage changes through attrition.	Schedule
	ARCHITECTURAL & TECHNICAL INFRASTRUCTURE						
5	Communication infrastructure is not in place.	100	0.5	50	Meet monthly with communication infrastructure project management to keep apprised of project status.	Delay project implementation. Move staff identified in FSR to locations that have connectivity.	Schedule Budget
6	Production and test environments cannot reside at the Teale Data Center.	100	0.1	10	Meet with TDC on a regular basis to obtain feedback as soon as possible on data center hosting services for project.	Delay project implementation.	Budget Schedule Hardware Software
7	Teale Data Center requires additional resources to support BIS.	20	0.1	2	Have TDC review FSR, involve ISD in development of resource requirements		Budget Schedule Hardware Software
	Risks/Potential Threats to Success	**Loss Hours**	**Probability**	**Risk Hours**	**Preventative Measures**	**Contingency Measures**	**Areas Affected**
8	Development and training environments cannot reside at TDC facility.	100	0.3	30	Meet with TDC on a regular basis to obtain feedback as soon as possible on data center hosting services for project.	Delay project implementation pursue services from other state data centers.	Budget Schedule Hardware Software

	Risks/Potential Threats to Success	Loss Hours	Probability	Risk Hours	Preventative Measures	Contingency Measures	Areas Affected
9	Institutions incur power issues related to addition of workstations and printers.	40	0.1	4	Meet monthly with communication infrastructure project management to keep apprised of project status. Early coordination with Telecomm Branch to identify potential issues.	Delay project implementation. Move staff identified in FSR to locations that have adequate power.	Schedule Budge Hardware Software
10	Network enhancements planned by other projects that may affect the CDC network redesign (CalParole).	80	.3	30	Meet with Parole on a regular basis to coordinate efforts.	Delay bandwidth assessment and analysis to ensure Parole requirements incorporated into design.	Budget Schedule
	CDC END-USER ISSUES						
11	Lack of buy-in/acceptance of ERP.	80	0.5	40	Involve stakeholders and end users in analysis and design phases; Provide sufficient and appropriate training for users; Ongoing communications	Elevate issues to Executive Steering Committee for their involvement in the re solution; Hold focus group with employees creating issues to understand issues and reach re solution	Schedule Budget Software
	SECURITY ISSUES						
12	Automating processes that are currently being performed by inmates may increase staff workload.	20	0.1	2	Ensure policy/standardization staff involved in process design		Schedule Budget
	ESTABLISHMENT AND CONTINUITY OF PROJECT TEAM						
13	CDC does not have project team resources in place and ready to go when the vendor starts.	100	0.5	50	Begin personnel hire process as soon as funds are approved; Request to hire submitted early.	Delay the start of the project.	Schedule Budget
14	CDC does not have project team facilities in place and ready to go when the vendor starts.	100	0.5	50	Begin facility search process as soon as funds are approved.	Delay the start of the project.	Schedule Budget
15	CDC Subject Matter Experts unavailable when needed.	40	0.3	12	Communicate timing of when subject matter experts are needed.	Elevate issues to Executive Steering Committee; Delay project.	Schedule Software
16	BIS Project unable to obtain balanced representation from Health Care Services, Institutions, Parole and Community Services and Administrative Services.	40	0.3	12	Establish limited-term positions for ERP team to enable divisions to backfill behind personnel participating on the BIS project.	Delay project/or request freeze exemption.	Schedule Software
	Risks/Potential Threats to Success	**Loss Hours**	**Probability**	**Risk Hours**	**Preventative Measures**	**Contingency Measures**	**Areas Affected**
	DATA CONVERSION, INTERFACES TESTING, MAINTENANCE AND APPLICATION SUPPORT						

	Risks/Potential Threats to Success	Loss Hours	Probability	Risk Hours	Preventative Measures	Contingency Measures	Areas Affected
17	Inability to develop interface to State Controllers Office (Positions, salaries, overtime, benefits, CalATERS, leave balances, CLAS, MIRS, etc.)	80	0.3	24	Stakeholder participation early on in analysis process. Work with system implementer and software vendor to identify auto work-arounds.	Automate current manual processes as much as possible.	Schedule Budget Software
18	Inability to develop interface to, Department of Finance (CalSTARS financial information) will restrict ability to meet user requirements.	80	0.3	24	Stakeholder participation early on in analysis process. Work with system implementer and software vendor to identify auto work-arounds.	Automate current manual processes as much as possible.	Schedule Budget Software
19	Inability to develop interface to Department of General Services (Cal Buy), HCCUP will restrict ability to meet user requirements.	80	0.3	24	Stakeholder participation early on in analysis process. Work with system implementer and software vendor to identify auto work-arounds.	Automate current manual processes as much as possible.	HCSD, DGS, CDC Business Services, ISD Legal, ProLaw vendor, and other vendors
20	Inability to develop interface to State Compensation Insurance Fund (SCIF), will restrict ability to meet user requirements.	20	0.3	6	Work with external agencies to determine likelihood of integration, identify issues, and allow adequate time to resolve. Work with system implementer and software vendor to identify auto work-arounds.	Automate current manual processes as much as possible.	Schedule Budget Software
21	AISA are not available for testing print capabilities and to install software on client PCs.	40	0.1	4	CDC management participation; staff training will be provided to ensure end-user needs are met to maintain software installation and testing capabilities.	Contract for services.	Budget Schedule
	FUNDING						
22	Full funding for the implementation is not provided.	40	0.3	12	Involve control agency in FSR process.	Delay implementation of Phase 2.	Budget Schedule

Probability:

.1 = Low, unlikely or highly unlikely

.3 = Minor, modest chance

.5 = Moderate, better than even chance

.7 = Significant, likely or probable

.9 = High, almost certain

8.0 ECONOMIC ANALYSIS WORKSHEETS

See Appendix B – Economic Analysis Worksheets